

Goshen/Kingsburg 6-Lane Freeway

State Route 99 north of the Goshen overhead
near the community of Goshen in Tulare County
to the Route 201 interchange in Kingsburg in Fresno County

TUL-99-KP 66.4/86.8 (PM 41.3/53.9)

FRE-99-KP 0.0/1.6 (PM 0.0/1.0)

06-324500

SCH Number: 2006051047

Environmental Assessment with Finding of No Significant Impact and Initial Study with Mitigated Negative Declaration



Prepared by the
U.S. Department of Transportation
Federal Highway Administration
and the
State of California Department of Transportation

October 2006



General Information About This Document

This document contains a Mitigated Negative Declaration and Finding of No Significant Impact, which examine the environmental effects of a proposed project on State Route 99 in Tulare and Fresno counties.

A previous version of the document – an Initial Study with Proposed Mitigated Negative Declaration/Environmental Assessment – was circulated for public comment from May 8, 2006 to June 26, 2006. In addition, a public hearing on the proposed project and the environmental document was held on June 8, 2006. The comments received have been incorporated into this document. The comments and Caltrans' responses to those comments are provided in Appendix F. Elsewhere, a line in the margin indicates changes or additions made since the circulation of the earlier document.

What happens after this?

The proposed project has completed environmental compliance after the circulation of this document. When funding is approved, Caltrans and the Federal Highway Administration can design and construct all or part of the project.

It should be noted that at a future date, the Federal Highway Administration or another federal agency may publish a notice in the Federal Register, pursuant to 23 U. S. Code Section 139(l), indicating that a final action has been taken on this project by the Federal Highway Administration or another federal agency. If such notice is published, a lawsuit or other legal claim will be barred unless it is filed within 180 days after the date of publication of the notice (or within such shorter time period as is specified in the federal laws pursuant to which judicial review of the federal agency action is allowed). If no notice is published, then the lawsuit or claim can be filed as long as the periods of time provided by other federal laws that govern claims are met.

For individuals with sensory disabilities, this document is available in Braille, large print, on audiocassette, or computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, Attn: Juergen Vespermann, Southern Sierra Environmental Analysis Branch, 2015 East Shields Avenue, Suite 100; 559-243-8157 Voice, or use the California Relay Service TTY number 1-800-735-2929.

Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (Caltrans) would widen a 21.9-kilometer (13.6-mile) segment of State Route 99 in Tulare and Fresno counties from a four/five-lane freeway to a six-lane freeway. Two additional lanes would be constructed in the median, except for the area between Dodge Avenue and Mendocino Avenue where widening would be partially constructed on the west side of the freeway, pavement rehabilitation, and reconstruction of existing lanes where necessary. The limits of the project extend between 0.3 kilometer (0.18 mile) north of the Goshen overhead and the Conejo Avenue undercrossing (Route 201 in Kingsburg). The southbound Kings River Bridge would be replaced, Cross Creek Bridge #46-34R would be lengthened, and 17 bridges would be widened. Soundwalls would be constructed in three locations, and this project would include replacement planting.

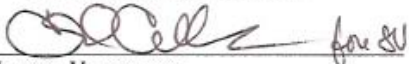
Determination

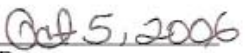
Caltrans has prepared an Initial Study for this project and, following public review, has determined from this study that the project would not have a significant effect on the environment for the following reasons:

- The project would have no effect on land use, industry, the economy, employment, cultural resources, parklands, recreational facilities, or educational facilities.

In addition, the project would have no significantly adverse effect on farmland, noise, residences, scenic resources, natural communities, and water quality because the following mitigation measures would reduce potential effects to insignificance:

- Noise impacts would be mitigated by the construction of soundwalls. Impacts to scenic resources from removing oleanders and trees would be mitigated by replacement planting.
- Impacts on endangered or threatened species would be mitigated by the implementation of the measures specified in a Biological Opinion rendered by the U.S. Fish and Wildlife Service. A Section 404 Nationwide permit would be required from the U.S. Army Corps of Engineers and a 401 Water Quality Certification would be required from the California Regional Water Quality Control Board for impacts to Wetlands and Other Waters of the U.S. A 1602 Streambed Alteration Agreement would be required from the California Department of Fish and Game for impacts to the bed, bank, and/or channels of the Kings River and Cross Creek. An Environmentally Sensitive Area would be established for one archaeological site. Two separate Environmentally Sensitive Areas would be established for two elderberry bushes. A California Reclamation Board encroachment permit would be required for the Kings River and Cross Creek.
- Impacts to water quality would be mitigated by implementing Best Management Practices, the Storm Water Pollution Prevention Plan, and the National Pollutant Discharge Elimination System.
- Impacts to one mobile home and 10 recreational vehicle pads used by guests at the Riverland resort would be mitigated by relocation.


Juergen Vespermann
Branch Chief
Southern Sierra Environmental Analysis Branch
Central Region Environmental Planning
California Department of Transportation


Date



**FEDERAL HIGHWAY ADMINISTRATION
FINDING OF NO SIGNIFICANT IMPACT**

for

State Route 99

Gosh to Kingsburg Six-Lane Project

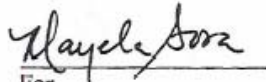
from

Goshen in Tulare County to Kingsburg in Fresno County, California

The Federal Highway Administration (FHWA) has determined that this project will not have any significant impact on the human environment. This finding of no significant impact is based on the attached Environmental Assessment, which has been independently evaluated by the FHWA and determined to adequately and accurately discuss the environmental issues and impacts of the proposed project. It provides sufficient evidence and analysis for determining that an environmental impact statement is not required. The FHWA takes full responsibility for the accuracy, scope, and content of the environmental assessment.

23 Oct 2006

DATE



For

Gene K. Fong

Division Administrator

Federal Highway Administration



Widen State Route 99 from 4 lanes to 6 lanes from
the Goshen overhead, kilometer post 66.4 (post mile 41.3), in Tulare County
to the Route 201 interchange in Kingsburg, kilometer post 1.6 (post mile 1.0), in Fresno County


**INITIAL STUDY
with Proposed Mitigated Negative Declaration
/ENVIRONMENTAL ASSESSMENT**

Submitted Pursuant to: (State) Division 13, California Public Resources Code
(Federal) 42 United States Code 4332(2)(C)

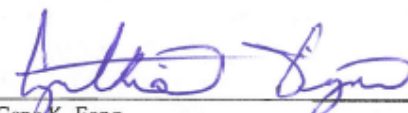
U.S. DEPARTMENT OF TRANSPORTATION
Federal Highway Administration

THE STATE OF CALIFORNIA
Department of Transportation

3/3/2006
Date of Approval


Juergen Vespermann
Branch Chief
Southern Sierra Environmental Analysis Branch
Central Region Environmental Planning
California Department of Transportation

04/06/2006
Date of Approval


Gene K. Fong
Division Administrator
Federal Highway Administration



Summary

The California Department of Transportation (Caltrans) and the Federal Highway Administration propose to widen a 21.9-kilometer (13.6-mile) segment of State Route 99 in Tulare and Fresno counties from a four- and five-lane freeway to a six-lane freeway. The limits of the project extend from 0.3 kilometer (0.18 mile) north of the Goshen Overhead to immediately north of the Conejo Avenue undercrossing (Route 201 in Kingsburg).

This project is a 2004 State Transportation Improvement Program project, which is proposed to provide an acceptable Level of Service for future traffic projections. It is included in the Tulare County Regional Transportation Plan, which was adopted August 9, 2004. The Federal Highway Administration has designated this project a high priority project. Additional funding has been designated by the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users for the next two phases of the project: the Project Specifications and Estimates phase and Right-of-Way phase. This funding is listed in both the 2006 Federal Transportation Improvement Program and the 2006 Interregional Transportation Improvement Program.

The Caltrans Project Development Team has considered the recent designation change of State Route 99 to an interstate. On August 10, 2005, State Route 99 was designated a future part of the interstate system by act of legislation entitled “Safe, Accountable, Flexible Efficient Transportation Equity Act - A Legacy for Users.” If the State of California decides to pursue the interstate designation, Caltrans would be required to complete construction of State Route 99 to interstate system standards within 25 years, or the designation of a future interstate system route could be removed.

In comparing the interstate standards with the Caltrans Highway Design Manual, Caltrans would upgrade many elements of the existing highway: vertical clearance correction would require the replacement of three overcrossings and the modification of the respective interchanges. This work is currently beyond the scope of this project and would be ineffective without the correction of bridges north and south of this project. The ultimate corridor of State Route 99 may also include the widening of the freeway to eight lanes, requiring the replacement of all overcrossings within this project. A commitment to replace bridges at this point is not warranted without a formal commitment to either the interstate conversion or the ultimate eight-lane road.

The purpose for widening this segment of State Route 99 is to reduce traffic congestion and improve traffic operations. Two build alternatives and a No-Build Alternative were under consideration.

Preferred Alternative

Based on environmental, design engineering, and cost considerations, Alternative 2 has been chosen as the Preferred Alternative. The selection of the Preferred Alternative was made on July 28, 2006 after all environmental impacts and public comments were considered.

Alternative 2 is the same as Alternative 1, but with the additional rehabilitation from kilometer posts 66.5 to 77.4 (post miles 41.3 to 48.1), pavement rehabilitation, and reconstruction of existing lanes where necessary, which would improve the service life of this section of State Route 99. Alternative 1 would construct two additional lanes in the median, except for the area between Dodge Avenue and Mendocino Avenue where widening would be partially constructed on the west side of the freeway. The southbound Kings River Bridge would be replaced, and Cross Creek Bridge #46-34R would be lengthened. In addition, 16 bridges would be widened. Soundwalls would be constructed in three locations. This alternative would also include replacement planting.

The No-Build Alternative would leave this stretch of State Route 99 as it is. The No-Build Alternative does not meet the purpose and need for the project. No improvements would be implemented to relieve congestion or reduce delays, or reduce the number of accidents on this stretch of State Route 99.

At the request of the City of Kingsburg, alterations to the southbound Mendocino off-ramp have been proposed to be included into the scope of the project. However, since accident data does not indicate occurrence higher than average at this location, and affected business owners have strongly objected to these improvements, these improvements have been removed from the scope of this project.

The summary of potential impacts for the build and no-build alternatives is provided in the following table. The proposed project impacts reflected below are identical and would be mitigated, therefore, reducing potential effects to insignificance. No housing displacements would occur as a result of this project. There are no floodplain issues, although the Best Management Practices would alleviate water quality issues at Kings River, Cross Creek, and its northern tributary. No hazardous waste sites were found. There are minimal project impacts on farmland, visual resources, air quality,

and cultural resources. One Environmentally Sensitive Area would be established for an archaeological site. Two separate Environmentally Sensitive Areas would also be established for two elderberry bushes. Ongoing consultation with resource agencies for impacts to sensitive species would be completed before construction.

Summary of Potential Impacts from Alternatives

| Potential Impact | | Alternative 1 | Alternative 2 | No-Build Alternative |
|--|-----------------------------------|--|--|----------------------|
| Consistency with the Tulare and Fresno County General Plans | | Yes | Yes | No |
| Farmland converted | | Approximately 0.49 hectare (1.21 acres) of farmland | Approximately 0.49 hectare (1.21 acres) of farmland | No |
| Relocation | Business displacements | Yes | Yes | No |
| | Housing displacements | No | No | No |
| | Utility service relocation | Yes | Yes | No |
| Visual/Aesthetics | | Minimal effect on the visual character of the corridor | Minimal effect on the visual character of the corridor | No |
| Cultural Resources | | One Environmental Sensitive Area to be established | One Environmental Sensitive Area to be established | No |
| Hydrology and Floodplain | | No | No | No |
| Water Quality and Storm Water Runoff | | Yes | Yes | No |
| Hazardous Waste/Materials | | No | No | No |
| Air Quality | | Yes | Yes | No |
| Noise and Vibration | | Three soundwalls to be constructed | Three soundwalls to be constructed | No |
| Wetlands and other Waters | | <0.0405 hectare (0.1 acre) wetlands and <0.0405 hectare (0.1 acre) of Other Waters of the U.S. | <0.0405 hectare (0.1 acre) wetlands and <0.0405 hectare (0.1 acre) of Other Waters of the U.S. | No |

< = less than

Summary of Potential Impacts from Alternatives (continued)

| Potential Impact | Alternative 1 | Alternative 2 | No-Build Alternative |
|--|--|--|----------------------|
| Plant Species | 9 elderberry bushes Of the 9 elderberry bushes, two would be established as Environmentally Sensitive Areas | 9 elderberry bushes Of the 9 elderberry bushes, two would be established as Environmentally Sensitive Areas | No |
| Animal Species | San Joaquin kit fox, valley elderberry longhorn beetle, pallid bat, Yuma myotis bat, and Swainson's hawk | San Joaquin kit fox, valley elderberry longhorn beetle, pallid bat, Yuma myotis bat, and Swainson's hawk | No |
| Threatened and Endangered Species | San Joaquin kit fox, valley elderberry longhorn beetle | San Joaquin kit fox, valley elderberry longhorn beetle | No |
| Construction | Permanent and Temporary Impacts | Permanent and Temporary Impacts | No Impact |

Caltrans would obtain the appropriate permits before construction. A U.S. Army Corps of Engineers Nationwide Section 404 permit and a California Regional Water Quality Control Board Section 401 Water Quality Certification would be required for impacts to jurisdictional wetlands and Other Waters of the United States. A Department of Fish and Game Section 1602 Streambed Alteration Agreement would be required for permanent and temporary impacts to the bed, bank, and channels for the Kings River Bridge, Cross Creek, and one northern tributary to Cross Creek. A National Pollutant Discharge Elimination System permit for storm water impacts would be required. An encroachment permit to allow construction within Tulare County right-of-way would be required before construction. A California Reclamation Board encroachment permit would be required for the Kings River and Cross Creek.

A Biological Opinion was received from the U.S. Fish and Wildlife Service on June 23, 2005. After reviewing the current status of the San Joaquin kit fox and the valley elderberry longhorn beetle, the U.S. Fish and Wildlife Service determined that the proposed project is not likely to jeopardize the continued existence of any of the listed species, or adversely modify proposed or designated critical habitat. According to the Biological Opinion, the newly acquired right-of-way would not provide suitable habitat for the kit fox, and is not likely to adversely affect the San Joaquin kit fox.

Designated critical habitat for the valley elderberry longhorn beetle is not found in the project area and therefore would not be affected by the proposed project. Details of the U.S. Fish and Wildlife Service Biological Opinion are provided in the Biological Environment section of this document.



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List of Abbreviated Terms

| | |
|----------|---|
| Caltrans | California Department of Transportation |
| CFR | Code of Federal Regulations |
| ft | feet |
| KP | kilometer post |
| m | meters |
| PM | post mile |
| U.S. | United States |
| USC | United States Code |

Chapter 1 Proposed Project

1.1 Introduction

State Route 99 is a principal arterial and an adopted freeway for its entire length within Kern, Tulare, Fresno, and Madera counties. It connects San Joaquin Valley regional centers of population, economic activity, and recreational areas with the rest of the state. It is also a major corridor for goods movement through Tulare and Fresno counties. State Route 99 is also part of the National Network for Larger Trucks allowed by the Surface Transportation Assistance Act of 1982.

The Goshen to Kingsburg six-lane segment was identified in the 2003 Caltrans Transportation Concept Report for State Route 99. The report indicated that traffic congestion and operational deficiencies need to be addressed. The project was initiated in response to a request by Tulare County and was included in the 2004 Regional Transportation Plan.

Caltrans and the Federal Highway Administration propose to upgrade State Route 99 from a four- and five-lane freeway to a six-lane freeway from Goshen in Tulare County to Kingsburg in Fresno County, California (see Figures 1-1 and 1-2). As a result of this project, this segment of State Route 99 would then serve the growing San Joaquin Valley with an acceptable Level of Service and improved safety.

1.2 Purpose and Need

Caltrans and the Federal Highway Administration propose to improve a 21.9-kilometer (13.6-mile) stretch of State Route 99 between Goshen and Kingsburg by widening the road to six lanes (see Figure 1-2). The project would reduce traffic congestion and delays. This project is included in the 2004 State Transportation Improvement Program and in the Tulare County Regional Transportation Plan, adopted August 9, 2004. The Federal Highway Administration has designated this project a High Priority Project. Additional funding has been designated by the Safe, Accountable, Flexible, Efficient Transportation Equity Act — A Legacy for Users for the next two phases of the project: the Project Specifications and Estimates phase and Right-of-Way phase. This funding is listed in both the 2006 Federal Transportation Improvement Program and the 2006 Interregional Transportation Improvement Program.

1.2.1 Purpose

The purpose of this project is to:

- Alleviate traffic congestion and delays.
- Attain an acceptable Level of Service for this segment of State Route 99 to meet the existing and projected traffic volumes.
- Improve operations of this segment of State Route 99.

1.2.2 Need

Caltrans is responding to the need to improve this section of State Route 99 identified by the Tulare County Association of Governments. The San Joaquin Valley is growing in population and, as a result, traffic is increasing. The land use along this segment of State Route 99 is primarily industrial and agricultural.

The current average daily traffic count along this stretch of State Route 99 is 51,000 vehicles. Trucks compose 28 percent of the average daily traffic. Such a high volume of trucks mixed with other vehicles creates congestion, delays, and safety concerns. This stretch of State Route 99 has a Level of Service of D. Level of Service is ranked A through F, with A indicating the free flow of traffic, and F indicating the most congested conditions (see Figure 1-3). According to the Highway Capacity Manual, a publication from the Transportation Research Board, important parameters in determining Level of Service on a roadway are travel speed, freedom to maneuver, and proximity to other vehicles. Beyond Level of Service E, the theoretical capacity of the roadway has been exceeded. Caltrans has established Level of Service C as the acceptable level for State Route 99.

A Level of Service of C for the roadway is identified for the 20-year planning horizon. The concept roadway is a six-lane freeway that would match the six-lane project currently being constructed north of this project. This would provide a continuous six-lane freeway from Goshen to Fresno. Also, a proposed project to widen State Route 99 from Tulare to Goshen is being studied. Beyond the 20-year planning horizon, the ultimate roadway would be an eight-lane freeway.

The estimated construction year of the proposed project is 2010 when the projected average daily traffic count is estimated to be 56,600 vehicles. The average daily traffic count is expected to reach 67,000 by the year 2030. Table 1.1 shows the existing and future traffic volumes and their respective Levels of Service.

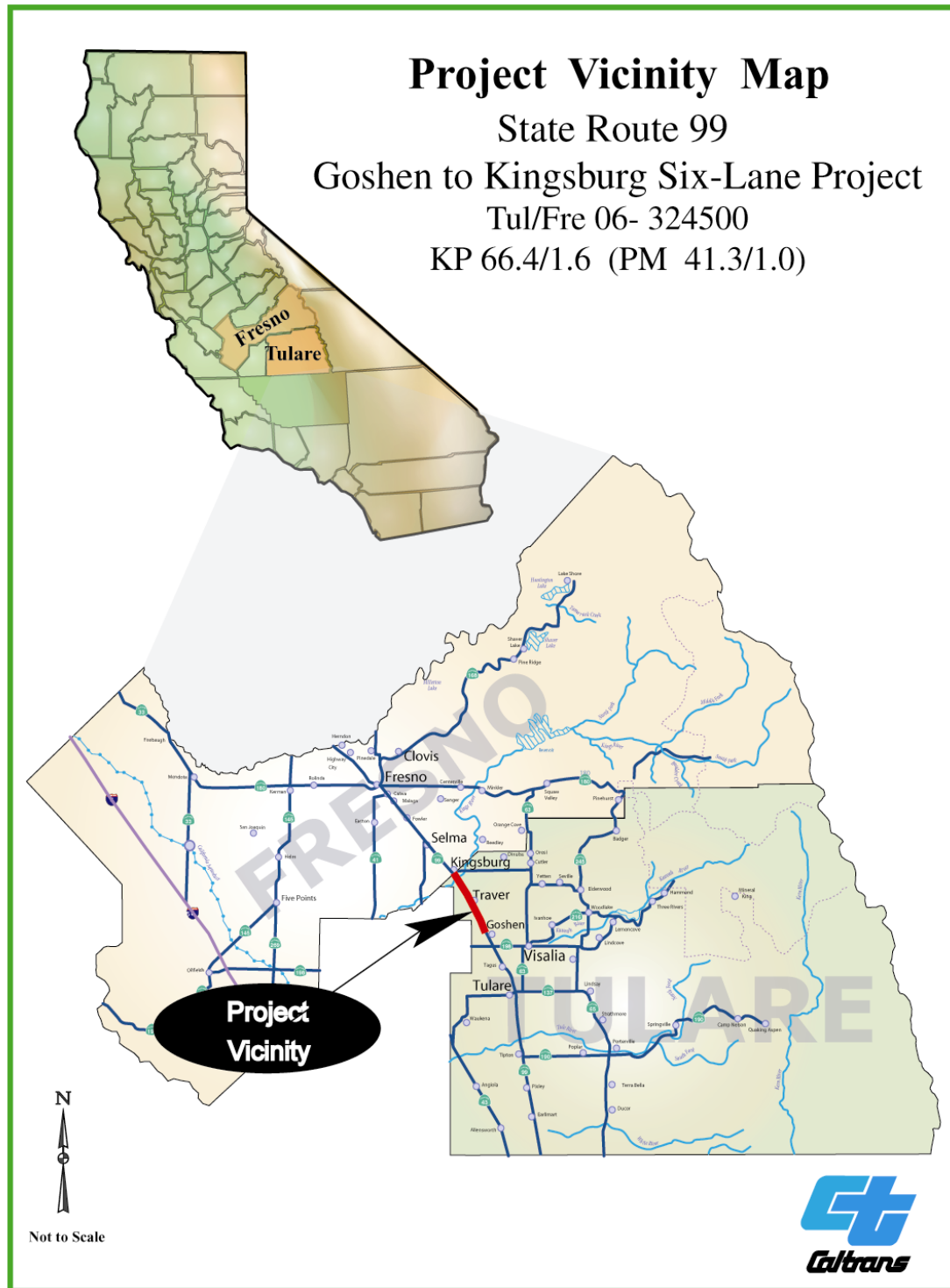
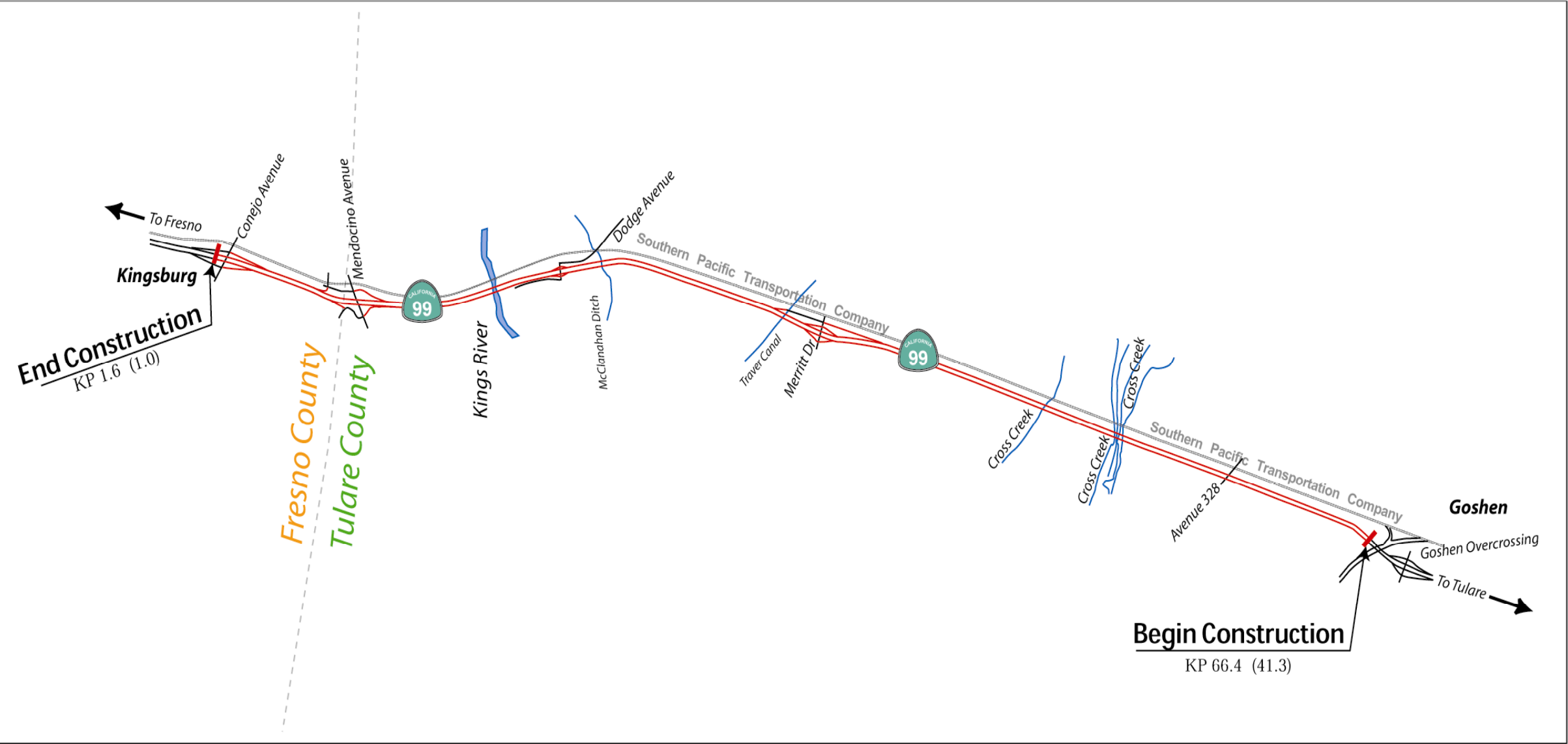


Figure 1-1 Project Vicinity Map





Not to Scale:

Project Location Map

State Route 99
Goshen to Kingsburg Six-Lane
TUL-99-KP 66.4/86.8 (PM 41.3/53.9)
FRE-99-KP 0.0/1.6 (PM 0.0/1.0)
EA-06-324500

Figure 1-2 Project Location Map



LEVELS OF SERVICE

for Freeways







| Level of Service | Flow Conditions | Operating Speed (mph) | Technical Descriptions |
|------------------|---|-----------------------|--|
| A |  | 70 | Highest quality of service. Traffic flows freely with little or no restrictions on speed or maneuverability. No delays |
| B |  | 70 | Traffic is stable and flows freely. The ability to maneuver in traffic is only slightly restricted. No delays |
| C |  | 67 | Few restrictions on speed. Freedom to maneuver is restricted. Drivers must be more careful making lane changes. Minimal delays |
| D |  | 62 | Speeds decline slightly and density increases. Freedom to maneuver is noticeably limited. Minimal delays |
| E |  | 53 | Vehicles are closely spaced, with little room to maneuver. Driver comfort is poor. Significant delays |
| F |  | <53 | Very congested traffic with traffic jams, especially in areas where vehicles have to merge. Considerable delays |

Figure 1-3 Level of Service



Table 1.1 Level of Service for Existing and Future Traffic Volumes

| Year | Average Daily Traffic | Level of Service |
|------|-----------------------|------------------|
| 2005 | 52,000 | D |
| 2010 | 56,600 | *F/B |
| 2030 | 67,000 | *F/C |

*No Build/Alternative 1 and Alternative 2

The traffic study indicated that this segment of State Route 99 currently operates at Level of Service D. With no improvements, traffic operations would decline from the existing Level of Service D to Level of Service F by the year 2010.

Table 1.2 reflects the accident rate for the three-year period between July 1, 2002 and June 30, 2005. There were 0.68 and 0.65 accidents per million vehicle kilometers for the northbound and southbound directions respectively, as compared to the statewide average of 0.56 accidents per million vehicle kilometers on similar roadways. A total of 486 reported accidents occurred during this three-year period.

Out of the total accidents, 143 were injury accidents, and 12 were fatal accidents. The majority of the accident types were hit objects (243) and rear-end collisions (104). The project would remove many of the trees in the median, which should reduce hit-object accidents. The project would also increase traffic capacity, which should decrease the rear-end collisions (maneuverability is increased with additional traffic lanes). Without the project, the accident rate, congestion, and delays could be expected to increase as traffic increases to forecasted volumes on the existing road.

**Table 1.2 Accident Rates
July 2002 to June 2005**

| Actual | | | | State Average | | |
|-----------|-------|----------------|-------|---------------|----------------|-------|
| Direction | Fatal | Fatal & Injury | Total | Fatal | Fatal & Injury | Total |
| North | 0.019 | 0.22 | 0.68 | 0.014 | 0.24 | 0.56 |
| South | 0.019 | 0.21 | 0.65 | 0.014 | 0.24 | 0.56 |

Accidents per million vehicle kilometers

1.3 Alternatives

This section describes the proposed action and the design alternatives that were developed by a multi-disciplinary team to achieve the project purpose and need while avoiding or minimizing environmental impacts. The alternatives were Build Alternative 1, Build Alternative 2, and the No-Build Alternative.

Build Alternative 2 was chosen as the Preferred Alternative based on environmental, design engineering, and cost considerations. The selection of the Preferred Alternative was made on July 28, 2006 after all environmental impacts and public comments were considered.

1.3.1 Common Design Features of the Build Alternatives

This project proposes to upgrade State Route 99 from a four- and five-lane freeway to a six-lane freeway from Goshen to Kingsburg. New lanes would be 3.6 meters (12 feet) wide. Widening would be required to the west near the Kings River due to inadequate median width. Avenue 384 would be realigned to the west between the Kings River and the Dodge Avenue interchange to accommodate the widening. A total of 1.94 hectares (4.79 acres) of right-of-way would be required.

The southbound Kings River bridge, built in 1957, was improved in 1985. By the time the proposed project would be built, the bridge structure will have exceeded its design service life. So, the bridge would be removed and replaced to eliminate long-term maintenance of the 45-year-old bridge deck and joints. With the major widening proposed and the bridge's current level of deterioration, replacing the southbound structure would be more cost-effective than expanding and fixing the existing structure.

The existing northbound bridge would be widened such that along with the reconstructed southbound bridge, they would accommodate six lanes. During the construction of the proposed bridge, southbound traffic would be detoured to the northbound bridge after it has been widened. The northbound bridge would consist of four lanes at 3.6 meters (12 feet) each, with four shoulders at 0.45 meter (1.5 feet) during the detour with a temporary concrete barrier separating the opposing traffic.

Cross Creek Bridge #46-34R would have an additional reinforced box culvert added to the two existing reinforced concrete box culverts for a total of three to match the capacity of Cross Creek Bridge #46-34L. A detour similar to the Kings River detour

would be used to transfer northbound traffic to the southbound lanes during construction.

The existing minimum vertical clearances for the Merritt Drive, Avenue 384, and Mendocino Avenue overcrossings would be maintained at 4.66, 4.72, and 4.69 meters (15.2, 15.5, 15.4 feet), respectively. These overcrossings would be below the standard vertical clearances of 5.1 meters (16.7 feet) for new construction and 4.9 meters (16 feet) for rehabilitation projects. The horizontal clearances at these bridges range from 2.6 to 2.73 meters (8.53 to 8.95 feet) to the columns both in the median and adjacent to the outside shoulders. This is less than the standard 3 meters (10 feet). The horizontal and vertical clearances at these locations have been addressed with a design exception dated January 26, 2000. Should State Route 99 be converted to an interstate highway, the issue of overcrossing vertical and horizontal clearances would be needed to be reevaluated.

Portions of the existing outside shoulder on State Route 99 within the limits of the project are 2.6 meters (8.53 feet) wide, which is less than the current standard of 3 meters (10 feet). Shoulder widths would be upgraded to current standards except near the overcrossing structures. The three existing northbound lanes just north of the Goshen overhead to the Traver interchange, from kilometer posts 66.5 to 77.4 (post miles 41.3 to 48.1) would be rehabilitated and all damaged sections would be replaced.

Three soundwalls are proposed. One would be placed in the city of Kingsburg on a concrete safety-shaped barrier along the southbound edge of shoulder of State Route 99. The second would be placed along the eastern right-of-way line just south of the Dodge Avenue interchange to reduce noise levels near the Kings Inn Motel. The third would be placed along the southbound outside edge of shoulder south of the Kings River Bridge near Riverland, a private resort area. On January 6, 2006, the owner of the Riverland property sent Caltrans an electronic mail message requesting that the proposed soundwall near Riverland be constructed.

See Figures 1-4 and 1-5 for illustrations of the cross-sections of the build alternatives.

1.3.2 Unique Features of Build Alternatives

Alternative 1

Alternative 1 involves everything stated above under Common Design Features of the Build Alternatives, except that the rehabilitation of the three northbound lanes just north of the Goshen overhead to Traver interchange would not be included.

Alternative 2

This alternative is the same as Alternative 1, plus the additional rehabilitation of the three existing northbound lanes just north of the Goshen overhead to the Traver interchange, from kilometer posts 66.5 to 77.4 (post miles 41.3 to 48.1). This rehabilitation includes replacing damaged sections of the roadway.

No-Build Alternative

This alternative would keep this section of State Route 99 as it is. No measures would be taken to upgrade State Route 99 or reduce the increasing congestion that State Route 99 motorists now endure. The Level of Service would continue to deteriorate as the number of vehicles and accidents increases. The No-Build Alternative does not meet the purpose and need for this project.

Alternatives Withdrawn from Consideration

Additional build alternatives considered but withdrawn from consideration were: widening the existing alignment to the east or west and constructing a six-lane freeway on an eight-lane right-of-way.

Land use in Traver and Union Pacific Railroad mainline conflicts preclude a build alternative to the east and the acquisition of extensive farmland and commercial uses preclude a build alternative to the west. In the City of Kingsburg, widening to the outside would require the following additional impacts: removal of established tree planting on the side slopes on both sides of the freeway, removal of a frontage road, relocations of residents and businesses, re-alignment of portions of four city streets, the realignment of the Mendocino/Mission northbound on-ramp, additional widening of the Draper Street Undercrossing bridges, and construction of up to 366 meter-long (1,200 feet) lane transitions from narrow median width to a wide median back to a narrow median.

An alternative to construct a six-lane freeway on an eight-lane right-of-way would require extensive right-of-way acquisition, potentially increased environmental impacts, and reconstruction of four interchanges. The project cost for this alternative

would be economically impractical considering the current statewide project funding conditions.

1.4 Permits and Approvals Needed

The following permits, reviews, and approvals would be required for project construction:

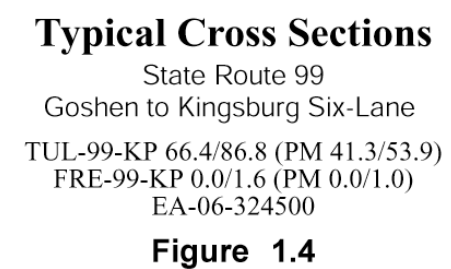
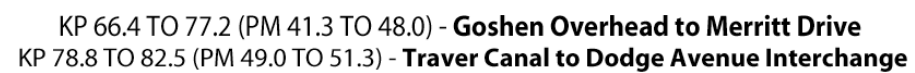
Table 1.3 Permits and Approvals

| Agency | Permit/Approval | Status |
|---|---|---|
| Tulare County | Encroachment Permit | Application would be submitted at the Right-of-Way phase of the project. |
| U.S. Army Corps of Engineers | Section 404 Nationwide Permit for permanent fill within wetlands and other waters of the U.S. | Application would be submitted after the final environmental document distribution. |
| California Regional Water Quality Control Board | Section 401 Water Quality Certification required for jurisdictional wetlands and other waters of the U.S. | Application would be submitted after the final environmental document distribution. |
| U.S. Fish and Wildlife Service | Biological Opinion required for impacts to the valley elderberry beetle and the San Joaquin kit fox. | Biological Assessment was submitted to U.S. Fish and Wildlife Service on December 15, 2004. |
| California Department of Fish and Game | Section 1602 Streambed Alteration Agreement | Application would be submitted after the final environmental document distribution. |
| California Reclamation Board | Encroachment permit for Kings River and Cross Creek impacts. | Application would be submitted after the final environmental document distribution. |

1.5 Cost and Scheduling

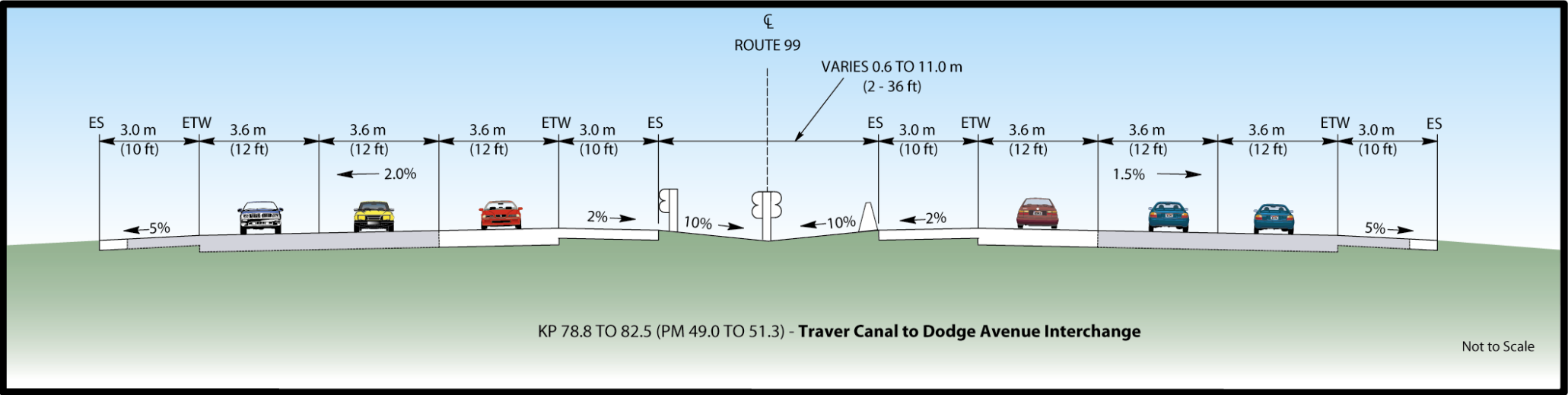
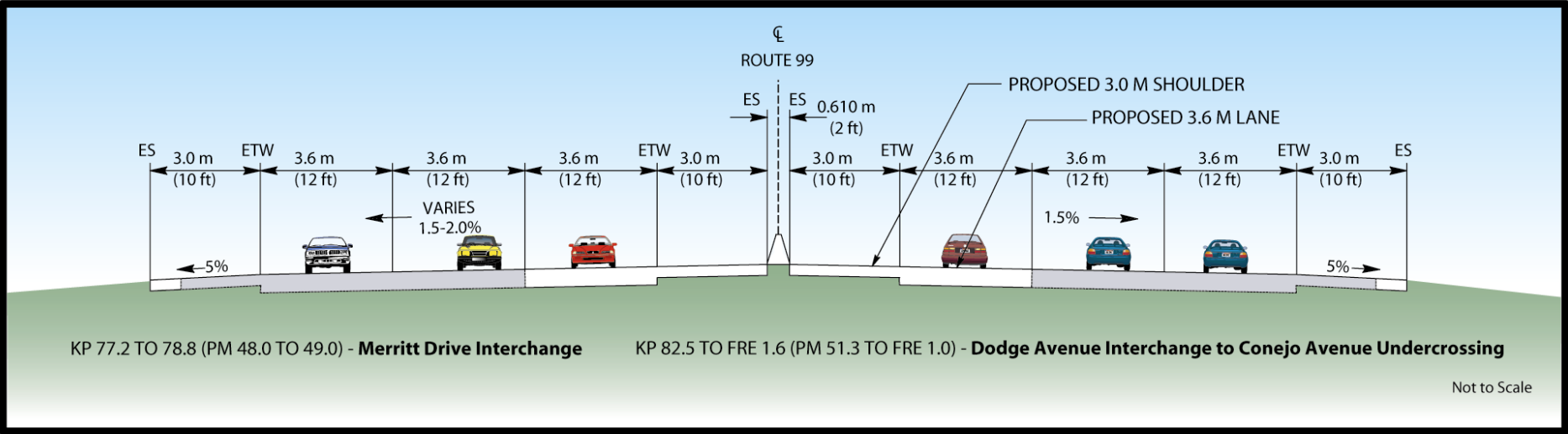
The total project cost for the Preferred Alternative is estimated to be \$144,080,000 (with \$142,840,000 for construction and \$1,240,000 for right-of-way). This project is scheduled to begin construction in the 2009/2010 fiscal year.





15





| LEGEND | | |
|--------|--------------------|------------------|
| ES | Edge of Shoulder | Existing Roadway |
| ETW | Edge of Travel Way | Proposed Roadway |

Typical Cross Sections

State Route 99
Goshen to Kingsburg Six-Lane
TUL-99-KP 66.4/86.8 (PM 41.3/53.9)
FRE-99-KP 0.0/1.6 (PM 0.0/1.0)
EA-06-324500

Figure 1.5

Figure 1-5 Typical Cross-Sections – Merritt Drive Interchange, Dodge Avenue Interchange to Conejo Avenue Undercrossing, and Traver Canal to Dodge Avenue Interchange



Chapter 2 Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures

This chapter explains the impacts that the project would have on the human, physical, and biological environments in the project area. It describes the existing environment that could be affected by the project and potential impacts from each of the alternatives.

As part of the scoping and environmental analysis conducted for the project, the following environmental resources were considered, but no potential for adverse impacts to these resources was identified. Consequently, there is no further discussion regarding these resources in this document:

- Traffic and Transportation/Pedestrian and Bicycle Facilities—There are no existing or proposed pedestrian or non-motorized facilities. State Route 99 is a controlled access freeway with little residential population. The 1.6-kilometer (1-mile) residential area within the city of Kingsburg has two undercrossings with fully functional sidewalks to allow pedestrians to cross the freeway. See Project Report October 2004.
- Paleontology—Deep excavation is not planned; therefore, a paleontology study is not recommended according to the Initial Paleontology Study dated July 19, 2002. The new southbound bridge would be built in the same area as the old bridge, and would require small areas of deep piles; therefore the potential for paleontological resources impacts remains low.
- Environmental Justice—No minority or low-income populations have been identified that would be adversely affected by the proposed project. Therefore, the project would have no adverse impacts to minority and/or low-income populations.
- Section 4(f)—There are no resources subject to Section 4(f) within the project limits. Royal Oak Park is a private recreational facility. Access would remain the same with the project.

- **Plant Species** – A Natural Environment Study was prepared in October 2004. No suitable habitat for special-status plant species exists within the project impact area, and no special-status species were observed during botanical surveys.

2.1 Human Environment

2.1.1 Land Use

Current land use in and around the project area is zoned as agricultural, commercial, and light industrial. Some housing and motels are also found on both sides of State Route 99 within the project limits. Total project right-of-way would be acquired in the amount of 1.94 hectares (4.8 acres) near the Kings River area.

2.1.1.1 Existing and Future Land Use

The proposed project is a response to current traffic conditions and projected traffic growth based on local plans and growth projections. It is not proposed to support major new, unplanned development. The project is consistent with local and regional land use and transportation planning.

2.1.1.2 Consistency with State, Regional, and Local Plans

The aim of the proposed project is to serve the existing and future traffic demand along State Route 99 based on local land use plans. This 2004 State Transportation Improvement Program project would provide an acceptable Level of Service for future traffic projections. It is included in the Tulare County Regional Transportation Plan adopted August 9, 2004, and the Federal Highway Administration has designated this project a high priority project. The project is consistent with the Tulare County General Plan and the Fresno County General Plan. Additional funding has been designated by the Safe, Accountable, Flexible, Efficient Transportation Equity Act - A Legacy for Users for the next two phases of the project: the Project Specifications and Estimates phase and Right-of-Way phase. Funding is listed in both the 2006 Federal Transportation Improvement Program and the 2006 Interregional Transportation Improvement Program.

2.1.2 Growth

Regulatory Setting

The Council on Environmental Quality regulations, which implement the National Policy Act of 1969, requires evaluation of the potential environmental consequences

of all proposed federal activities and programs. This provision includes a requirement to examine indirect consequences, which may occur in areas beyond the immediate influence of a proposed action and at some time in the future. The Council on Environmental Quality regulations, 40 Code of Federal Regulations 1508.8, refers to these consequences as secondary impacts. Secondary impacts may include changes in land use, economic vitality, and population density, which are all elements of growth.

The California Environmental Quality Act also requires the analysis of a project's potential to induce growth. California Environmental Quality Act guidelines, Section 15126.2(d), require that environmental documents "...discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment..."

Affected Environment

According to the Tulare Regional Transportation Plan adopted in August 2004, the Tulare County population has grown from 379,700 in 2002 to 396,800 in 2004—a difference of 17,100 in two years. The population projection for 2010 is 433,868, growing to 521,300 in 2020 and 620,605 in 2030. The Tulare County Association of Governments assumes a 2.25 percent yearly growth rate for 20 years.

Table 2.1 Tulare County Population Projections

| Tulare County Projections | 2002 | 2004 | 2010 | 2020 | 2030 |
|--|-------------|-------------|-------------|-------------|-------------|
| Population | 379,700 | 396,800 | 433,868 | 521,300 | 620,605 |

*2004/2005 Regional Transportation Plan – Tulare County

This project is not being proposed to support major new, unplanned development. The proposed project is a response to current traffic conditions and projected traffic growth based on local plans and growth projections. With Tulare County's projected steady growth rate, the roadway's current Level of Service (D) would decline to F, an unacceptable level, by 2010.

2.1.3 Farmlands

Regulatory Setting

The National Environmental Policy Act and the Farmland Protection Policy Act (United States Code 4201-4209; and its regulations, 7 Code of Federal Regulations Ch. VI Part 658) require federal agencies, such as the Federal Highway Administration, to coordinate with the Natural Resources Conservation Service if their activities may irreversibly convert farmland (directly or indirectly) to nonagricultural use. For purposes of the Farmland Protection Policy Act, farmland includes prime farmland, unique farmland, and land of statewide or local importance.

The California Environmental Quality Act requires the review of projects that would convert Williamson Act contract land to non-agricultural uses. The main purposes of the Williamson Act are to preserve agricultural land and to encourage open space preservation and efficient urban growth. The Williamson Act provides incentives to landowners through reduced property taxes to deter the early conversion of agricultural and open space lands to other uses.

Affected Environment

Caltrans Environmental staff completed a Farmland Conversion Impact Rating for Corridor Type Projects form to determine whether the project would be subject to consideration under the Farmland Protection Policy Act. (See Appendix E.) The form was completed and submitted to the Natural Resource Conservation Service in Visalia, California. Caltrans also contacted the Tulare County Assessor's Office to determine which farmlands were under Williamson Act contract.

Farmland impacts for highway projects have been determined through the use of the U.S. Department of Agriculture's Farmland Conservation Impact Rating Form from the Natural Resources Conservation Service. The form assigns the affected farmland a total score of up to 260 points (up to 160 points for the site assessment and up to 100 points for relative value of the site). Sites receiving a total score of less than 160 points need not be given further protection.

The Relative Value Ratings on the Farmland Conversion Impact Rating Form for Corridor Type Projects uses land evaluation criteria based on information from several sources, including national cooperative soil surveys, Natural Resource Conservation Service field office technical guides, soil penetration guides, soil potential ratings, land capability classifications, and important farmland determinations. Based on this information, groups of soils are assigned a score

between 0 to 100, representing the relative value for agricultural production of farmland converted by the project as compared to other farmland in the surrounding area.

The Site Assessment Criteria evaluated by Caltrans consisted of several factors:

- Land use within a mile radius of the sites
- Recent history of the use of land
- Whether or not the farmland is protected by the state
- Comparison of the average size to similar farmland in the region
- The evaluation of whether the land is still farmable if the project is constructed
- Availability of support services and markets
- The presence of substantial and well-maintained on-farm investments
- Compatibility of the project with farming activities

Impacts

Total right-of-way required for this project would be 1.94 hectares (4.8 acres). Of the total right-of-way required, 0.49 hectare (1.21 acres) is farmland. Of all farmland required for this project, there is 0.38 hectare (0.94 acre) of “prime” farmland and 0.11 hectare (0.27 acre) of Statewide Important or Local Important farmland. See Table 2.2 and Appendix E for a breakdown of farmland categories for each alternative.

The score on the Farmland Conversion Impact Rating for Corridor Type Projects form fell below the 160-point threshold required for additional protection under the Farmland Protection Policy Act. The project has no significant farmland impacts under the California Environmental Quality Act.

Table 2.2 Farmland Conversion

| Alternative | Land Converted hectares (acres) | Prime and Unique farmland hectares (acres) | Statewide Importance or Local Importance Farmland hectares (acres) | Percent farmland in County | Farmland Conversion Impact Rating |
|----------------------|---------------------------------|--|--|----------------------------|-----------------------------------|
| Alternative 1 | 0.49 (1.21) | 0.94 (0.38) | 0.11 (0.27) | 0.00017% | 153.6 |
| Alternative 2 | 0.49 (1.21) | 0.94 (0.38) | 0.11 (0.27) | 0.00017% | 153.6 |
| No-Build | 0 | 0 | 0 | 0 | 0 |

Source: Form NRCS-CPA-106 (Farmland Conversion Impact Rating for Corridor Type Projects)

Williamson Act Farmlands

A total of 0.40 hectare (0.99 acre) of Williamson Act farmlands near the Kings River would be acquired for the project.

The acreage needed from two Williamson Act properties amounts to less than one acre. Caltrans' acquisition of farmland under Williamson Act contract would not result in cancellation or violation of the contract. The viability of the agricultural operations would not be adversely affected.

Avoidance, Minimization, and/or Mitigation Measures

No mitigation is required.

2.1.4 Business Relocations

Regulatory Setting

Caltrans' Relocation Assistance Program is based on the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, and Title 49 Code of Federal Regulations, Part 24. The purpose of the Relocation Assistance Program is to ensure that persons displaced as a result of a transportation project are treated fairly, consistently, and equitably so that such persons will not suffer disproportionate injuries as a result of projects designed for the benefit of the public as a whole. Please See Appendix H for a summary of the Relocation Assistance Program.

All relocation services and benefits are administered without regard to race, color, national origin, or sex in compliance with Title VI of the Civil Rights Act (42 United States Code 2000d, et seq.). Please see Appendix C for a copy of Caltrans' Title VI Policy Statement.

Affected Environment

Caltrans Right of Way Division prepared a Final Relocation Impact Report on October 2, 2006. A field review of the proposed project was conducted to determine potential impacts on residences and businesses. The circulated draft environmental document did **not identify relocated** properties. During the comment period of the draft environmental document, **one property that would qualify for relocation assistance was identified.**

Impacts

One temporary mobile home used by guests at the Riverland resort would be affected by the construction of the Preferred Alternative. In addition, approximately 10 temporary recreational vehicle stalls at Riverland would be relocated within the property. At the time of the field visit, no vehicles were occupying these stalls.

Avoidance, Minimization, and/or Mitigation Measures

Coordination with Riverland would be needed. Any person who moves from real property or moves personal property from real property as a result of the acquisition of the real property, or required to relocate as a result of a written notice from the California Department of Transportation from the real property required for a transportation project is eligible for relocation assistance. All activities would be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. Relocation resources shall be available to all displaced free of discrimination.

2.1.5 Utility Relocations

Affected Environment

Utility companies involved in this project include Southern Bell Communications, Pacific Gas & Electric, Southern Cal Gas, Quest Communications, Sprint Fiber Optics, Consolidated Irrigation District, City of Kingsburg, Southern California Edison, and Alta Irrigation District.

Impacts

Construction and acquisition of right-of-way for this project would require utility facilities to be relocated within the project limits. Aerial and underground utilities would be shifted to the west near Riverland, and temporary construction easements and permanent easements would be required. A more detailed study would be conducted during the final design phase of this project. No environmental impacts are anticipated for the relocation of utilities for this project.

2.1.6 Visual/Aesthetics

A Scenic Resource Evaluation was prepared in June 2004 for this project. These studies define the visual environment of State Route 99, quantify the visual resources of the project area, and identify viewer response to those resources. The studies assess the change that would be introduced by the project and the corresponding viewer

response to that change. The perceived change is analyzed and used to determine the degree of potential impacts.

Regulatory Setting

The National Environmental Policy Act of 1969, as amended, establishes that the federal government use all practicable means to ensure all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings [42 U.S. Code 4331 (b)(2)]. To further emphasize this point, the Federal Highway Administration in its implementation of the National Environmental Policy Act [23 U.S. Code 109(h)] directs that final decisions regarding projects are to be made in the best overall public interest taking into account adverse environmental impacts, among others, the destruction or disruption of aesthetic values.

The California Environmental Quality Act establishes that it is the policy of the state to take all action necessary to provide the people of the state “with . . . enjoyment of aesthetic, natural, scenic and historic environmental qualities.” [CA Public Resources Code Section 21001(b)].

Affected Environment

The Tulare County section of State Route 99 is primarily rural beginning at the north edge of Goshen, passing through the small, unincorporated community of Traver, and ending in the southern portion of Kingsburg. Much of the views are of the highway, including highway planting, the Southern Pacific Railroad paralleling State Route 99, and agricultural crops and facilities.

The Fresno County segment of the proposed State Route 99 project contains areas of tree planting, median oleander shrub planting, and urban highway planting in the city of Kingsburg.

Impacts

The addition of the new lanes within this section of State Route 99 would have a minimal effect on the visual character of the corridor.

Removal of oleander shrubs in the median from Dodge to Conejo Avenues would be required for construction and is not expected to exceed about 6,000 meters (20,700 feet) out of a total of 12,000 meters (39,370 feet). Grading and drainage modifications would be required to correct existing deficiencies and to accommodate the proposed lane additions. The project would remove about 112 eucalyptus trees, approximately 30-50 percent of the total trees on this section of State Route 99.

This project proposes three locations for soundwalls. Location one would be at the south end of Kingsburg, from the Conejo southbound onramp to the Mendocino southbound offramp. This soundwall would range from 2.4 meters (8 feet) to 3.6 meters (12 feet) high and would be placed on a concrete safety-shaped barrier mounted on piles, capable of retaining up to 0.9 meters (3 feet) of earthwork. Location two would be at the Kings Inn Motel, south of Dodge Avenue. This soundwall would be 3.6 meters (12 feet) high and placed on a trench footing. Location three would be at Riverland, along the southbound outside edge of shoulder south of the Kings River Bridge placed on a concrete barrier similar to the first soundwall. This soundwall would be 4 meters (13 feet) high. See the Noise discussion in section 2.2.6.

Avoidance, Minimization, and/or Mitigation Measures

Soundwalls are to receive vine plantings where possible, as well as aesthetic treatments, including color, to enhance their visual quality.

Location one, the soundwall at the south end of the city of Kingsburg, would be placed in a heavily planted area. With existing and/or replacement vegetation, the offsite views to the wall would be covered. The views from the highway would be affected the most, but the use of vine plantings to soften the wall and deter graffiti, along with enhanced architectural treatments, would mitigate the impact.

Location two, northbound at the Kings Inn Motel, would be placed adjacent to a one-story motel that has an existing hedge of conifers along the Caltrans right-of-way. The existing and/or replacement conifer hedge would cover most of the wall from the offsite views. The soundwall would also have little impact on the views from the highway. The hedge, motel building, and elevated railroad tracks beyond block any views to the adjacent agriculture land use at this location. The use of vine plantings to soften the wall and deter graffiti, as well as enhanced architectural treatments, would mitigate any impact.

Location three, at Riverland, would be screened from off-site views and existing vegetation. The view from the alignment would be the most affected, but this location would be enhanced with architectural treatments and planting, which would mitigate the impact. See Figures 2-1, 2-2, and 2-3 in Noise section 2.2.6 for soundwall illustrations.

In 1990, Caltrans launched a conservation program with the intent to protect and manage existing plantings, as well as promote new planting. The existing eucalyptus trees and oleander shrubs have served to enhance the visual corridor for the highway users for decades. The project would remove about 112 trees, 6,000 meters (20,700 feet) of oleander, and 6 hectares (14.83 acres) of urban highway planting. This loss would be replaced with approximately 35 hectares (86.49 acres) of planting, including 1,500 trees. Replacement planting of oleanders and eucalyptus trees would occur at the State Routes 99/198 interchange, along State Route 99 through the community of Traver, and along State Route 99 through the city of Kingsburg.

In addition to the replacement planting, Caltrans recommends:

- Replacing plantings in areas near the removal, where possible.
- Removing full highway landscaping only where necessary.
- Protecting existing landscaping to remain from damage due to construction activities, including but not limited to removal and repair of existing facilities, grading operations, and soundwall construction.
- Removing trees in the median and on the shoulders only where necessary.
- Protecting existing trees and oleanders from damage due to construction activities, including but not limited to removal and repair of existing facilities, grading operations, and placement of posts, guardrail, and weed barrier.
- Removing oleander shrubs only where necessary.
- Maintaining the original grade at the base of existing oleander shrubs. No fill material would be in contact with stems. Newly constructed slopes greater than 3:1 adjacent to oleander shrubs would be stabilized with erosion control methods for erosion and sediment control.
- Directing storm water drainage toward existing oleander shrubs wherever possible.
- Pruning oleanders to promote healthy growth.

2.1.7 Cultural Resources

Regulatory Setting

“Cultural resources” as used in this document refers to historic and archaeological resources. The primary federal laws dealing with historic and archaeological resources include the following:

The National Historic Preservation Act, as amended, sets forth national policy and procedures regarding “historic properties”—that is, districts, sites, buildings,

structures, and objects included in or eligible for the National Register of Historic Places. Section 106 of the National Historic Preservation Act requires federal agencies to consider the effects of their undertakings on such properties, following regulations issued by the Advisory Council on Historic Preservation (36 Code of Federal Regulations 800).

The Native American Graves Protection and Repatriation Act addresses the rights of lineal descendants, Indian tribes, and Native Hawaiian organizations to Native American human remains and certain cultural items with which they are affiliated, and directs federal agencies and federal assisted museums to identify and repatriate the cultural affiliation of Native American human remains and related cultural items in holdings or collections under their possession or control.

Under California law, cultural resources are protected by the California Environmental Quality Act, as well as Public Resources Code Section 5024.1, which established the California Register of Historic Places. Section 5024.5 requires state agencies to provide notice to, and to confer with the State Historic Preservation Officer before altering, transferring, relocating, or demolishing state-owned historic resources.

Affected Environment

The project Area of Potential Effects is coinciding with the right-of-way required for all ground-disturbing activities, including road construction, realignment and installation of utilities, and vehicle and equipment storage. The Area of Potential Effects for architectural resources includes all parcels with buildings or structures that lie within or that are encroached upon by the proposed right-of-way. The Area of Potential Effects for the majority of the project extends about 60 to 150 meters (197 to 492 feet) from the centerline, encompassing the current right-of-way. The Area of Potential Effects, however, expands to 150 meters (492 feet) from the centerline to include the construction easement for a soundwall and potential retention basin at Riverland and to take in the proposed right-of-way needed for the Kings River southbound bridge replacement and potential retention basins.

Two potential archaeological sites were identified within the project limits. In compliance with Section 106 of the National Historic Preservation Act of 1966 (36 Code of Federal Regulations 800.4 (b)), one Extended Phase I testing was conducted to determine the presence or absence of one archaeological site. This study was initiated based on tentative findings from a Caltrans 1997 archaeological survey,

which identified a possible midden deposit eroding out of a cut-bank and a possible cobble tool. A midden is a prehistoric trash heap, usually containing shells and/or bones. Although the artifact and midden were not relocated, an Extended Phase I study was conducted in May 2002 to establish the existence and location of the possible midden. This Extended Phase I study identified no cultural resources.

Because of Native American concerns and potential archaeological sensitivity, a second Extended Phase I investigation was conducted for the second archaeological site within the right-of-way. This study determined that a low-density, buried, prehistoric archaeological site (CA-TUL-2450) exists. Archaeological material recovered in the nine trenches excavated by backhoe included an obsidian biface fragment, a modified quartz flake, chert and obsidian flakes, burnt and unburnt bone, and shell. Obsidian is volcanic glass that can be used to chip stone tools and chert is fine-grained rock that can be formed into arrowheads. The cultural deposit was found between about 30 and 150 centimeters (11.8 and 59 inches) below ground. The artifacts suggest that the site dates to late prehistory, is a single component, and retains integrity.

The Federal Highway Administration received a Finding of No Adverse Effect from the State Historic Preservation Officer, dated November 3, 2004, reflecting that if site CA-TUL-2450 is of itself an individual site, it would not be eligible for the National Register. In addition, if this site was part of a larger site, the excavated materials do not contribute any potential National Register eligibility (see Appendix C).

In addition, three architectural properties were evaluated—one house at 1370 Tenth Street, a house at 1380 Tenth Street, and the Buddhist Church at 830 Orange Avenue, all in Kingsburg. The State Historic Preservation Officer concurred with the Federal Highway Administration's determination that the three architectural properties were ineligible for the National Register.

Impacts

The Federal Highway Administration has determined that there are no properties eligible or potentially eligible for the National Register within the Area of Potential Effects of the proposed project. The three architectural properties were formally evaluated and are not eligible for the National Register of Historic Places nor do they constitute historic resources for the purposes of the California Environmental Quality Act. The project would not adversely affect site CA-TUL-2450 or the three architectural properties.

Avoidance, Minimization, and/or Mitigation Measures

The California State Historic Preservation Officer's Finding of No Adverse Effect is based on the following mitigation measures. An Environmentally Sensitive Area would be established along the western perimeter of the proposed construction limits within Caltrans' newly acquired right-of-way to protect areas that may contain denser archaeological deposits and/or human remains for site CA-TUL-2450. Pursuant to Attachment 5 of the Programmatic Agreement between the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the Department of Transportation, site protection would be ensured by flagging and signing the area beyond the right-of-way as an Environmental Sensitive Area. All construction activities within 15.24 meters (50 feet) of the known site boundaries would be monitored by a professionally qualified archaeologist and a Native American monitor.

Caltrans would coordinate with Santa Rosa Rancheria to ensure that a Native American monitor is present during construction. If artifacts were discovered during excavation, all earth-moving activity within and around the immediate discovery area would be diverted until a qualified archaeologist could assess the find. If human remains were discovered, State Health and Safety Code Section 7050.5 states that disturbances and activities would stop. The county coroner must be notified of the find immediately so that he/she may ascertain the origin. Pursuant to Public Resources Code Section 5097.98, if the remains were thought to be Native American, then the coroner would notify the Native American Heritage Commission who would then notify the Most Likely Descendent. The Most Likely Descendent may inspect the remains with the approval of the landowner or the landowners' authorized representative. The Most Likely Descendent must complete this inspection within 24 hours after notification by the Native American Heritage Commission. The Most Likely Descendent may recommend scientific removal and nondestructive analysis.

2.2 Physical Environment

The physical, geographical, and topological features are varied and consist of many different land uses over a distance of 22 kilometers (13.6 miles). The entire project rests in the South Valley Floor, as part of the Tulare Lake Basin. The region is geographically isolated from the coast by the Coast Ranges and the Tehachapi Mountains to the south. The project intersects the Kings River, Traver Canal, Cross Creek, McClanahan Ditch, Cole Slough, and Settler's Ditch.

2.2.1 Hydrology and Floodplain

Regulatory Setting

Executive Order 11988 (Floodplain Management) directs all federal agencies to refrain from conducting, supporting, or allowing actions in floodplains unless it is the only practicable alternative. The Federal Highway Administration requirements for compliance are outlined in 23 Code of Federal Regulations 650 Subpart A.

To comply, the following must be analyzed:

- The practicability of alternatives to any longitudinal encroachments
- Risks of the action
- Impacts on natural and beneficial floodplain values
- Support of incompatible floodplain development
- Measures to minimize floodplain impacts and to preserve/restore any beneficial floodplain values impacted by the project.

The 100-year floodplain is defined as “the area subject to flooding by the flood or tide having a one percent chance of being exceeded in any given year.” An encroachment is defined as “an action within the limits of the 100-year floodplain.”

Affected Environment

This project is in the Tulare-Buena Vista Lake watershed, one of the largest in California. It covers 8,575 square miles and contains 15 major rivers and streams. The area is agricultural. Farming on the valley floor has eliminated many natural channels, an important part of the drainage network. State Route 99 crosses a floodplain at three different locations along the route, at Kings River, Traver Canal, and Cross Creek.

Caltrans prepared a Hydraulic Study in April 1999, which was updated in March 2004 and June 2005. The Flood Insurance Rate Maps were evaluated to determine if any portion of the proposed project is in within an area that could be subjected to 100-year flooding.

Impacts

State Route 99 crosses a designated floodway at the Kings River and a floodplain at Traver Canal and Cross Creek, so drainage must be improved. A new southbound bridge at the Kings River would ensure that flood levels remain the same in the designated floodway. The new southbound Kings River Bridge would have the same number of piers and spacing as the old bridge.

Additional drainage systems would be added to achieve a fully functional drainage system in support of the proposed improvements on this section of State Route 99. Drainage features could include retention basins, equalizer cross culverts, scuppers, bio-swales, new drainage inlets in superelevated sections of the freeway, and side ditches. Scuppers drain water through concrete barriers, and bio-swales are broad, shallow depressions that are densely vegetated to channel and filter runoff.

Avoidance, Minimization, and/or Mitigation Measures

A retention basin with 1:4 or flatter slopes adjacent to the road could be constructed about 300 meters (984 feet) north of Mendocino Avenue and west of State Route 99. Equalizer cross culverts could be constructed to connect the basins and provide drainage relief for the median. Retention basins would be reevaluated at the design stage of the project. Side ditches would be re-graded throughout the project with new ditches constructed where needed.

Cross Creek and its northern tributary, kilometer posts 71.1 to 72.4 (post miles 44.2 to 45.0), are part of the 100-year floodplain. In this area of the project, sections of existing concrete barriers would be replaced by three-beam barriers wherever possible to allow the 100-year flow to cross State Route 99. The waterway at Cross Creek would be re-engineered to improve the hydraulics at this location. A reinforced concrete box would be added to increase drainage capacity reducing the potential for flooding. Most of the existing pipe drainage systems would require modification, including but not limited to: cleaning, adjusting and adding drainage inlets, and extending pipes.

Traver Canal may be subject to overtopping under the 100-year flood; therefore, metal guardrail is recommended to minimize impacts to the floodplain. Other drainage systems would be cleaned or completely replaced. Ditches along the east side of State Route 99 near the Kings River would function as bio-swales to treat and control runoff before entering the river. New drainage inlets would be required in the superelevated sections of the freeway to drain water from the median.

For both build alternatives, the proposed work would not result in a significant encroachment, as defined under 23 Code of Federal Regulations, Sections 650.105(q), at the Kings River, Traver Canal, and Cross Creek, where the freeway encounters a floodplain. The project, therefore, would not result in:

- Significant flooding risks.
- Significant impact to natural floodplain values.
- Incompatible floodplain development.
- Significant potential for interruption or termination of a transportation facility in the event of flooding.

Work at Kings River and Cross Creek would require an encroachment permit from the California Reclamation Board, a U.S. Army Corps of Engineers Nationwide Section 404 permit, and a California Regional Water Quality Control Board Section 401 Water Quality Certification to maintain the integrity and safety of stream floodways.

2.2.2 Water Quality and Storm Water Runoff

Caltrans prepared a Water Quality Report to evaluate potential impacts of the proposed project in August 2005. The assessment identifies the effect on surface water and groundwater resources and describes mitigation measures, if necessary, to reduce any substantial impacts.

Regulatory Setting

Section 401 of the Clean Water Act, the primary federal law regulating water quality, requires water quality certification from the state board or regional board when a project: 1) requires a federal license or permit (a Section 404 permit is the most common federal permit for Caltrans projects), and 2) would result in a discharge to waters of the U.S.

Section 402 of the Clean Water Act establishes the National Pollutant Discharge Elimination System permit system for the discharge of any pollutant (except dredge or fill material) into waters of the U.S. To ensure compliance with Section 402, the State Water Resources Control Board has developed and issued a National Pollutant Discharge Elimination System, Statewide Storm Water Permit to regulate storm water discharges from all of Caltrans' right-of-way, properties, and facilities. The permit regulates both storm water and non-storm water discharges during and after construction.

In addition, the State Water Resources Control Board issues the Statewide Permit for all of Caltrans' construction activities of 1 acre or greater. This permit also applies to a number of smaller projects that are part of a common plan of development

exceeding 1 acre or projects that have the potential to significantly impair water quality. Caltrans projects subject to the Statewide Storm Water Permit require a Storm Water Pollution Prevention Plan, while all other projects, smaller than 1 acre, require a Water Pollution Control Program.

The California Environmental Protection Agency has delegated administration of the federal National Pollutant Discharge Elimination System program to the State Water Resources Control Board and nine regional boards. This project is located within the jurisdiction of the State Water Resources Control Board and the Regional Water Quality Control Board, Central Valley Region.

Subject to Caltrans' review and approval, the contractor prepares both the Storm Water Pollution Prevention Plan and the Water Pollution Control Program. These identify construction activities that may cause pollutants in storm water and measures to control these pollutants. Since neither the Storm Water Pollution Prevention Plan nor the Water Pollution Control Program is prepared at this time, the following discussion focuses on anticipated pollution sources or activities that may cause pollutants in the storm water discharges.

Additional laws regulating water quality include the Porter-Cologne Water Quality Act, Safe Drinking Water Act, and Pollution Prevention Act. State water quality laws are codified in the California Water Code, Health and Safety Code, and Fish and Game Code, Section 5650-5656.

Affected Environment

In the project area, the physical, geographical, and topological features are varied and consist of many different land uses over a distance of 22 kilometers (13.6 miles). The entire project rests in the South Valley Floor, as part of the Tulare Lake Basin. The region is geographically isolated from the coast by the Coast Ranges to the west and the Tehachapi Mountains to the south. The project intersects the Kings River, Traver Canal, Cross Creek, McClanahan Ditch, and People's Ditch. The Kings River section within the project area is not designated a State Water Quality Control Board 303(d) listed impaired waterway.

The highway is raised above ground throughout the city of Kingsburg in Fresno County and returns to ground level in Tulare County. Surrounding land use is mostly agricultural and cattle grazing, with occasional dairy operations, rural residences closer to Kingsburg, and some roadside businesses. Groundwater in the region comes

from the Kaweah groundwater unit of the San Joaquin District of the California Department of Water Resources.

Impacts

Short-term impacts to surface water quality may occur during construction activities. Depending on the time of construction, surface water impacts may be minimized. The primary impacts may occur from exposure of loose soil during excavation, grading, and filling activities. The suspended solids, dissolved solids, and organic pollutants in surface water runoff could increase while nearby soils are disturbed and dust is generated.

Avoidance, Minimization, and/or Mitigation Measures

By incorporating proper and accepted engineering practices and Best Management Practices, the project would not produce significant or lasting impacts to water quality during construction or its operation. Any impacts may be mitigated by construction timing, sequencing, water quality protection, revegetation, and erosion and sediment control practices. Caltrans would work with the Regional Water Quality Control Board and the Kings River Conservation District during construction.

Further minimization of impacts can be achieved by working with the local irrigation district. At least four irrigation canals exist north of the Cross Creek Bridges, along with at least one additional canal south of the subject bridges and one wide canal just south of Mendocino Boulevard. This water is used to irrigate local orchards and row crops. Flow would be intermittent depending upon the time of year construction is anticipated. Construction activities adjacent to the irrigation canals north of the Cross Creek Bridges must remain at least 10 feet away from the agricultural wells within the footprint of the canals just west of the southbound State Route 99 alignment. The project is subject to the State Water Resources Control Board Resolution 2001-046 (Caltrans National Pollutant Discharge Elimination System general construction permit for Storm Water Discharge mitigation measures).

2.2.3 Geology/Soils/Seismic/Topography

Regulatory Setting

For geological and topographic features, the key federal law is the Historic Sites Act of 1935, which establishes a national registry of natural landmarks and protects “outstanding examples of major geological features.” Topographic and geologic features are also protected under the California Environmental Quality Act.

This section also discusses geology, soils, and seismic concerns as they relate to public safety and project design. Earthquakes are prime considerations in the design and retrofit of structures. Caltrans' Office of Earthquake Engineering is responsible for assessing the seismic hazard for Caltrans projects. The current policy is to use the anticipated Maximum Credible Earthquake, from young faults in and near California. The Maximum Credible Earthquake is defined as the largest earthquake that can be expected to occur on a fault over a particular period of time.

Affected Environment

A Preliminary Geotechnical Report was prepared in June 2004. The physical setting of the project site and the surrounding area were reviewed to determine climate, topography and drainage, man-made and natural features, and geology and seismicity factors for preliminary project design and construction planning.

According to the Western Regional Climate Center, the closest weather station to the project site is 25 kilometers (15.5 miles) northeast in Orange Cove, California. The annual precipitation is about 323 millimeters (12.7 inches). Most of this precipitation (over 97 percent) falls between October and May. The average daily minimum temperature ranges from 1.8° Celsius (35.2° Fahrenheit) in January to 16.6° Celsius (61.8° Fahrenheit) in July, while the average daily maximum temperature ranges from 12.8° Celsius (55.1° Fahrenheit) in January to 36.9° Celsius (98.5° Fahrenheit) in July. Freezing temperatures and snowfall are not common at the project site.

Topographic features were reviewed for the project area, which lies in the Great Valley geomorphic province of California on the western side of the Sierra Nevada Mountain Range. The flat terrain is typical for the valley region, with an elevation of 93 meters (305 feet) on the northern side of the project and an elevation of 87 meters (285.4 feet) on the southern side of the project, and a lower elevation of 84 meters (275.5 feet) in the middle. Most drainage runs west. Soils in the project limits consist of loose to very dense silt and sand, and mixtures of both.

Man-made features include overhead power and telephone lines, as well as underground utility lines, existing bridges and overpasses, and the existing side slopes. Natural features, including the existing soil types, to be considered during the design phase, appear to be suitable for the proposed improvements.

The California Department of Conservation, Division of Mines and Geology Geologic Map of California, Fresno Sheet, 1991 was used to determine the geologic

formations in the project location. Sedimentary deposits were formed during the Quaternary Period of the Cenozoic Area, between 10,000 and 1.6 million years ago.

Seismic Hazard Maps dated 1996 indicated that the controlling fault is the Coast Ranges-Sierran Block fault. The fault lies about 72 kilometers (44.7 miles) southwest of the project location.

Impacts

The Coast Ranges-Sierran Block fault is expected to be capable of producing a Maximum Credible Earthquake of magnitude 7 on the Richter Scale. A Type 1 retaining wall with a soundwall or a concrete barrier with a soundwall supported by reinforced concrete piles cast in drilled holes would be used for underground structural support. The southbound Kings River Bridge would be replaced. In addition, soil could enter the Kings River due to the steep slopes at the bridge abutment. All structures associated with this project would be built to seismic standards for the seismic risks identified.

Avoidance, Minimization, and/or Mitigation Measures

No new hazards would be created in constructing this project. A subsurface investigation would be performed in support of the retaining wall or cast-in-drilled-hole piles and would be reported in the Geotechnical Design Report. In addition, preventive measures would be taken as soil could enter the Kings River during construction.

2.2.4 Hazardous Waste Materials

Regulatory Setting

Hazardous materials and hazardous wastes are regulated by many state and federal laws. These include not only specific statutes governing hazardous waste, but also a variety of laws regulating air and water quality, human health, and land use.

The main federal laws regulating hazardous wastes/materials are the Resource Conservation and Recovery Act of 1976 and the Comprehensive Environmental Response, Compensation and Liability Act of 1980. The purpose of the Compensation and Liability Act, often referred to as Superfund, is to clean up contaminated sites so that public health and welfare are not compromised. The Resource Conservation and Recovery Act provides for “cradle to grave” regulation of hazardous wastes. Other federal laws include the following:

- Community Environmental Response Facilitation Act of 1992
- Clear Water Act
- Clean Air Act
- Safe Drinking Water Act
- Occupational Safety & Health Act
- Atomic Energy Act
- Toxic Substances Control Act
- Federal Insecticide, Fungicide, and Rodenticide Act

In addition to the acts listed above, Executive Order 12088, Federal Compliance with Pollution Control, mandates that necessary actions be taken to prevent and control environmental pollution when federal activities or federal facilities are involved.

Hazardous waste in California is regulated primarily under the authority of the federal Resource Conservation and Recovery Act of 1976, and the California Health and Safety Code. Other California laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning.

Worker health and safety and public safety are key issues when dealing with hazardous materials that may affect human health and the environment. Proper disposal of hazardous material is vital if it is disturbed during project construction.

Affected Environment

To determine whether there were any potential sources of hazardous waste within the project limits, Caltrans conducted an Initial Site Assessment on State Route 99 between Avenue 384 and the Tulare County line and from the Fresno County line to Conejo Avenue. After reviewing the proposed Area of Potential Effects boundaries, previous scoping documents, the Regional Water Quality Control Board Leaking Underground Tank Information System list, and a VISTA Information Solutions, Inc. corridor search, and doing a thorough field survey, Caltrans identified three properties as potential hazardous waste sites: a dairy farm, an orchard, and a vineyard.

Impacts

Caltrans determined there were no hazardous waste concerns associated with the parcels along the Area of Potential Effects boundaries in Fresno and Tulare counties. Caltrans conducted aerially deposited lead studies along State Route 99 for the length of this project in July 2000. No mitigation is required since statistical analysis

suggests that soils excavated from the shoulder and median areas would have low concentrations of aerially deposited lead. The soils excavated for the construction of this project can be reused without restriction.

The southbound Kings River Bridge would be removed and replaced. Historically, asbestos-containing materials have been found in bridge structures in the form of railing shims, sheet packing and bearing shim materials. Shims are a thin, sometimes tapered piece of wood, metal, or stone, which fills and levels space.

Avoidance, Minimization, and/or Mitigation Measures

Past design plans of the bridge do not show use of asbestos-containing materials, but provisions for removal and disposal would be part of the construction planning. Costs for disposal of asbestos-containing materials are based on the square footage of materials used in the bridge construction.

2.2.5 Air Quality

Regulatory Setting

The Clean Air Act as amended in 1990 is the federal law that governs air quality. Its counterpart in California is the California Clean Air Act of 1988. These laws set standards for the quantity of pollutants that can be in the air. At the federal level, these standards are called National Ambient Air Quality Standards. Standards have been established for six criteria pollutants that have been linked to potential health concerns; the criteria pollutants are: carbon monoxide (CO), nitrogen dioxide (NO₂), ozone (O₃) particulate matter (PM), lead (Pb), and sulfur dioxide (SO₂).

Under the 1990 Clean Air Act Amendments, the U.S. Department of Transportation cannot fund, authorize, or approve federal actions to support programs or projects that are not first found to conform to the Clean Air Act requirements. The proposed project must conform on both the regional level and project level to be approved.

Regional level conformity is concerned with how well the region is meeting the standards set for the pollutants listed above. Based on Regional Transportation Plans, which include all transportation projects planned for a region, usually for the next 20 years, an air quality model is run to determine if the implementation of those projects would result in a violation of the clean Air Act. If no violations would occur, then the regional planning organization, such as the Council of Fresno County Governments or the Tulare County Association of Governments and the appropriate federal agencies, such as the Federal Highway Administration, make the determination that

the Regional Transportation Plan is in conformity with the Clean Air Act. If, however, violations would occur, the projects in the Regional Transportation Plans must be modified until conformity is attained. If the design and scope of the proposed transportation project are the same as described in the Regional Transportation Plan, then the proposed project is deemed to be in conformity at the regional level.

Conformity at the project-level also requires “hot spot” analysis if an area is “non-attainment” or “maintenance” for carbon monoxide and/or particulate matter. A regional is a “non-attainment” area if one or more monitoring stations in the region fail to attain the relevant standard. Areas that were previously designated as non-attainment areas but have recently met the standard are called “maintenance” areas. “Hot spot” analysis is essentially the same, for technical purposes, as carbon monoxide or particulate matter analysis performed for National Environmental Policy Act and California Environmental Quality Act purposes.

Conformity does include some specific standards for projects that require a hot spot analysis. In general, projects must not cause the carbon monoxide standard to be violated, and in “non-attainment” areas the project must not cause any increase in the number and severity of violations. If a known carbon monoxide or particulate matter violation is located in the project vicinity, the project must include measures to reduce or eliminate the existing violation(s) as well.

The Environmental Protection Agency established the National Ambient Air Quality Standards for six pollutants: ozone, carbon monoxide, suspended particulate matter, nitrogen dioxide, sulfur dioxide, and lead. Lead was discussed in the Hazardous Waste Materials section of this environmental document.

Each pollutant is evaluated differently, depending on whether it occurs on a regional level or a project level. The main pollutants related to transportation projects are ozone, carbon monoxide, and particulate matter.

Affected Environment

Caltrans prepared an Air Quality Study on January 26, 2006, and an update was prepared in August 2006.

The proposed project is located in the San Joaquin Valley Air Basin. The most important factor affecting weather patterns in the San Joaquin Valley is the high-pressure cell referred to as the “Pacific High.” During summer, the Pacific High is positioned off the coast of northern California, diverting ocean-driven storms to the

north. Hence, the summer months are virtually rainless. During the winter, the Pacific High moves southward allowing storms to pass through the San Joaquin Valley. Almost all of the precipitation expected during a given year occurs from December through April.

During summer, surface winds come out of the northwest. Air enters the valley through the Carquinez strait and flows toward the Tehachapi Mountains. This up-valley wind flow is interrupted in early fall by nightly, down-valley winds that become progressively more predominant as winter approaches. Wind speeds are generally highest during the spring and lightest in fall and winter. The relatively cool air flowing through the Carquinez strait is warmed on its journey south through the valley. At the south end of the valley, the average high temperature during the summer is nearly 100 degrees Fahrenheit. Relative humidity during the summer is quite low, causing large daytime temperature variations. Temperatures during the summer often drop into the upper 60s. In winter, the average high temperatures reach into the mid-50s and the average low temperature drops to the mid-30s.

In addition, another high-pressure cell, known as the “Great Basin High,” develops east of the Sierra Nevada Mountains during winter. When this cell is weak, a layer of cool, damp air becomes trapped in the basin and extensive fog results. In the San Joaquin Valley, heavy fog occurs on an average of 20 days per year, with December and January having the most frequent fog.

Impacts

This capacity-increasing project is not exempt from the requirement that a conformity determination be made. The design concept and scope of this project is consistent with that assumed in regional emissions analysis. The project does not interfere with the timely implementation of traffic control measures.

Regional Analysis

The proposed project is fully funded and is in the 2004/2005 Tulare County Regional Transportation Plan that was found to conform by the Tulare County Association of Governments on August 9, 2004; the Federal Highway Administration and the Federal Transit Administration adopted the air quality conformity finding on August 9, 2004. The project would be included in the Tulare County Association of Governments’ financially constrained 2006 Regional Transportation Improvement Program. The design concept and scope of the proposed project is consistent with the

project description in the 2004 Regional Transportation Plan and the assumptions in the Tulare County Association of Governments' regional emissions analysis.

Project-Level Conformity

The San Joaquin Valley Unified Air Pollution Control District administers air quality regulations developed at the federal, state, and local levels. Table 2.3 indicates that current ozone and particulate matter conditions are not in compliance with federal and state regulations. The project is in an attainment area for carbon monoxide under federal and state regulations.

Table 2.3 Air Quality Emissions Analysis for Tulare County

| Pollutant | Federal Standard | State Standard | Monitoring Data | | | Federal Attainment Status | State Attainment Status |
|--|--|---|-----------------|-------|-------|-----------------------------|-------------------------|
| | | | 2003 | 2004 | 2005 | | |
| Carbon Monoxide (ppm) | 35 ppm (1-hour maximum) 9 ppm (8-hour maximum) | 20 ppm (1-hour maximum) 9 ppm (8-hour maximum) | 3.03 | 2.24 | 1.48 | Attainment/ Unclassified | Attainment |
| Particulate Matter ₁₀ (µg/m ³) | 150 µg/m ³ (24-hour average) 50 µg/m ³ annual arithmetic mean | 50 µg/m ³ (24-hour average) 20 µg/m ³ annual arithmetic mean | 100.0 | 82.0 | 68.0 | Non-attainment | Non-attainment |
| Particulate Matter _{2.5} (µg/m ³) | 15 µg/m ³ annual arithmetic mean 65 µg/m ³ (24-hour average) | 12 µg/m ³ annual arithmetic mean No standard for 24-hour average | 49.0 | 60 | 50 | Non-attainment | No state standard |
| Ozone (ppm) | 0.08 ppm | 0.09 ppm (1-hour) | 0.124 | 0.133 | 0.117 | Non-attainment | Non-attainment |
| | | 0.070 ppm (8-hour) | 0.102 | 0.099 | 0.099 | | |
| Sulfur Dioxide (ppm) | 0.030 ppm (annual arithmetic mean) 0.14 ppm (24-hour) | 0.04 ppm (24-hour) 0.25 ppm (1-hour) | N.A. | N.A. | N.A. | No federal standard | Attainment |
| Nitrogen Dioxide | 0.053 ppm (annual arithmetic mean) | 0.25 ppm (1-hour) | 0.087 | 0.078 | 0.069 | Attainment/ Unclassified | Attainment |

*State of California Air Resources Board
N.A. = Not Available
ppm = parts per million

Carbon Monoxide Hot Spot

A carbon monoxide hot spot micro-scale analysis was performed. Carbon monoxide levels were modeled at Mendocino on-ramp, Avenue 368 on-ramp, Avenue 384 Dodge on-ramp, and Avenue 308 Elder on-ramp. All predicted concentrations for the proposed project were below the applicable federal and state standards.

Implementation of the project would not create a new violation or worsen an existing one. Therefore, based on the above analysis, no major local carbon monoxide impacts would occur as a result of the proposed project.

Particulate Matter (PM₁₀) Analysis

The project lies in a non-attainment area for the federal particulate matter standard. The proposed project is subject to hot-spot analysis requirements for PM₁₀ in light of the PM₁₀ non-attainment or maintenance area (for federal standards) status for the purpose of transportation conformity. Since the Environmental Protection Agency has not released modeling guidance on how to perform quantitative hot-spot analysis, such analysis is not currently required.

For the qualitative analysis, the monitored station on North Church Street in Visalia, California, has not registered any violation of the PM₁₀ national standard in the last three years (2003-2005). The proposed project would relieve congestion and reduce idling time at intersections, therefore providing an overall air quality benefit. It appears the daily concentrations of PM₁₀ at this site are currently within the standards, and future emissions that may result from the project would be low enough that they would not introduce a PM₁₀ problem. Based on the above, the project would not create a new violation or worsen an existing violation of the PM₁₀ National Ambient Air Quality Standard.

Particulate Matter (PM_{2.5}) Analysis

A qualitative PM_{2.5} hot-spot analysis is required for this project in order to meet the conformity requirements with the final Transportation Conformity rule issued by the Environmental Protection Agency on March 10, 2006, Code of Federal Regulations 93.123(b)(1). Since the Environmental Protection Agency has not released modeling guidance on how to perform quantitative hot-spot analysis, such analysis is not currently required.

The San Joaquin Valley Modeling Coordinating Committee reviewed this project as a project of air quality concern. To be a project of air quality concern, the average daily

traffic count must exceed 125,000 vehicles per day, and the percentage of trucks must exceed 8 percent of average daily traffic. The project was reviewed due to the high percentage of truck traffic on State Route 99.

A qualitative analysis was performed, and data from two PM_{2.5} monitoring stations in Fresno and Tulare counties nearest to the project area was collected. Table 2.4 reflects the number of days exceeding national annual standards for particulate matter for each station near the project area. Data from these monitoring stations indicated that the number of days exceeding the national standards for PM_{2.5} increased slightly since 2003.

**Table 2.4 Monitoring Station Data
Days Exceeding National Annual Standards for PM_{2.5}**

| Year | North Church Street Monitoring Station Tulare County | Hamilton and Winery Monitoring Station Fresno County |
|------|--|--|
| 2003 | 0 | 0 |
| 2004 | 0 | 1 day exceeding |
| 2005 | 2 days exceeding | 3 days exceeding |

Source: California Air Resources Board

The project would relieve congestion and therefore provide an overall air quality benefit. Based on the above, there is no reason to believe that the project would create a new violation or worsen an existing violation of the PM_{2.5} National Ambient Air Quality Standard. The comparison between the Build and No-Build scenarios shows that the Build scenario would improve State Route 99 Level of Service within the project area by decreasing congestion, accident potential and idling time for diesel trucks, while maintaining air quality.

In addition to the criteria pollutants discussed above, the Environmental Protection Agency also regulates air toxins, including particulate matter contained in diesel exhaust. Diesel engine exhaust contains a complex mixture of gases and particulates that have raised concerns about their potential for adverse health effects. Human exposure to diesel engine exhaust comes from both highway and non-highway sources. Studies of the risks are inclusive, however, and the Environmental Protection Agency has yet to establish air quality standards or guidelines for assessing the project level effects of mobile air toxins. Such limitations make the study of mobile

air toxic concentrations, exposures, and health impacts difficult and uncertain, especially on a quantitative basis.

During construction, the proposed project would generate air pollutants. The exhaust from construction equipment contains hydrocarbons, oxides of nitrogen, carbon monoxide, suspended particulate matter, and odors. However, the largest percentage of pollutants would be windblown dust generated during excavation, grading, hauling, and various other activities. Dust and odors could cause occasional annoyance to some residences very close to the right-of-way.

Avoidance, Minimization, and/or Mitigation Measures

Future new or worsened PM_{2.5} violations of any standards are not anticipated, and therefore, the project meets the conformity hot-spot requirements in 40 Code of Federal Regulations 93.116 and 93.123 for PM_{2.5}.

Caltrans circulated a public notice of Project Conformity Analysis for PM_{2.5} between September 6, 2006 and October 6, 2006 in *The Fresno Bee*, *Kingsburg Recorder*, *Tulare Advance-Register* and the *Visalia Times-Delta*. No comments from the public were received. The PM_{2.5} hot-spot analysis was also circulated to the San Joaquin Valley Interagency Consultation Workgroup. Members of the San Joaquin Interagency Consultation Workgroup concurred with the conclusions presented in the PM_{2.5} and PM₁₀ hot-spot analyses.

Caltrans standard specifications pertaining to dust control and dust palliative requirements are part of all construction contracts and should effectively reduce and control emission impacts during construction. Typical dust and emission control methods include watering the construction site, runoff and erosion control, traps on diesel-exhaust systems, and emission-control retrofits on older, higher polluting vehicles. These impacts are addressed through Caltrans standard specifications, Section 7-1.0F, “Air Pollution Control” and Section 10, “Dust Control.”

The San Joaquin Valley Unified Air Pollution Control District administers air quality regulations developed at the federal, state, and local levels. The contractor must comply with San Joaquin Valley Unified Air Pollution Control District rules, ordinances, and regulations.

2.2.6 Noise and Vibration

Regulatory Setting

The National Environmental Policy Act of 1969 and the California Environmental Quality Act provide the broad basis for analyzing and abating the effects of highway traffic noise. The intent of these laws is to promote the general welfare and to foster a healthy environment.

For highway transportation projects with Federal Highway Administration involvement, the Federal-Aid Highway Act of 1970 and the associated implementing regulations (23 Code of Federal Regulations 772) govern the analysis and abatement of traffic noise impacts. The regulations require that potential noise impacts in areas of frequent human use be identified during the planning and design of a highway project. The regulations contain noise abatement criteria that are used to determine when a noise impact would occur. The noise abatement criteria differ depending on the type of land use under analysis. For example, the noise abatement criterion for residences (67 decibels) is lower than the noise abatement criterion for commercial areas (72 decibels). Table 2.4 lists the noise abatement criteria.

In accordance with Caltrans *Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects, October 1998*, a noise impact occurs when the future noise level with the project results in a substantial increase in noise level (defined as a 12-decibel or more increase) or when the future noise level with the project approaches or exceeds the noise abatement criteria. Approaching the noise abatement criteria is defined as coming within 1 decibel of the noise abatement criteria.

Table 2.4 Federal Activity Categories and Noise Abatement Criteria

| Activity Category | Noise Abatement Criteria Hourly A-Weighted Noise Level, Average Decibels Over One Hour | Description of Activities |
|-------------------|--|--|
| A | 57 Exterior | Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose |
| B | 67 Exterior | Picnic areas, recreation areas, playgrounds, active sport areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals |
| C | 72 Exterior | Developed lands, properties, or activities not included in Categories A or B above |
| D | -- | Undeveloped lands |
| E | 52 Interior | Residence, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums |

Source: Caltrans Traffic Noise Analysis Manual, 1998

A-weighted decibels are adjusted to approximate the way humans perceive sound

If it is determined that the project would have noise impacts, then potential abatement measures must be considered. Noise abatement measures that are determined to be reasonable and feasible at the time of final design are incorporated into the project plans and specifications. This document discusses noise abatement measures that would likely be incorporated in the project.

Caltrans' *Traffic Noise Analysis Protocol* sets forth the criteria for determining when an abatement measure is reasonable and feasible. Feasibility of noise abatement is basically an engineering concern. A minimum 5-decibel reduction in the future noise level must be achieved for an abatement measure to be considered feasible. Other considerations include topography, access requirements, other noise sources, and safety considerations. The reasonableness determination is basically a cost-benefit analysis. Factors used in determining whether a proposed noise abatement measure is reasonable include: residents' acceptance, the absolute noise level, build versus existing noise levels, environmental impacts of abatement, public and local agencies'

input, newly constructed development versus development pre-dating 1978, and the cost per benefited residence.

Traffic noise analysis consists of the following steps:

1. Identification of noise-sensitive receptors such as residences, parks, churches, schools, libraries, and hospitals.
2. Completion of a noise measurement survey to determine the existing noise levels at the sensitive receptors or acoustically equivalent locations.
3. Modeling the future noise levels using SOUND 32, a Caltrans-approved software.
4. Determination of feasible and reasonable noise abatement measures for areas affected by the project.

Affected Environment

Most of the land use in the project area is agricultural and industrial, with some residential (in Kingsburg) and two schools. This segment of State Route 99 is elevated throughout the city of Kingsburg and then transitions to ground level before it exits Fresno County and enters Tulare County. Some affected Kingsburg residents (noise receptors) may be shielded from direct noise by the fill of the freeway embankment, whereas receptors farther than the first row may experience the full effects of the traffic noise, even though they are farther away.

At the Kings River, Riverland may experience a similar situation as it is depressed below the highway grade, although it is right next to the highway. The noise would flow in a direct, straight path, since there are no alterations in relative grade.

Impacts

It was determined that this project would produce levels of traffic noise above the federal noise abatement criteria. Further determinations were made regarding the feasibility and reasonableness of sound barrier construction (soundwalls) in three locations. Analysis revealed that the affected locations are noisy, and abatement is recommended. Traffic noise impacts for State Route 99 in the project area are predicted to increase as a result of the increased traffic volume.

The Noise Impact Technical Reports, dated January 3, 2003, and updated on August 10, 2006, identified these three locations:

- Kingsburg—residential subdivisions within the city of Kingsburg, north of Mendocino Avenue to South of Conejo Avenue
- Kings Inn Motel—east of State Route 99, south of Dodge Avenue
- Riverland—west of State Route 99, directly south of the Kings River

The Kingsburg area (from Mendocino Avenue to Conejo Avenue), Kings Inn Motel, and Riverland are experiencing noise levels above the federal noise abatement criteria of 67 decibels. The predicted noise level with the project in the city of Kingsburg would be 73.7 decibels. The predicted noise level with the project at the Kings Inn Motel would be 76.8 decibels. The predicted noise level with the project at Riverland would be 74.8 decibels.

Multiple alternatives for each soundwall were examined, and all barriers were found to be feasible and reasonable. Alternatives to barrier length were evaluated for each potential barrier; certain lengths were more feasible and reasonable than others. Table 2.5 shows the existing and future levels with and without noise abatement.

Avoidance, Minimization, and/or Abatement Measures

Based on the studies completed to date, Caltrans and the Federal Highway Administration would incorporate noise abatement in the form of barriers upon completion of the project design and the public involvement process. Noise abatement measures have been considered for each affected area, and the measures are reasonable (cost-effective) and feasible (would achieve the minimal 5-decibel reduction). These preliminary studies indicated likely abatement measures based on preliminary design:

Barrier 1 – Kingsburg: A soundwall ranging from 2.4 and 3.6 meters (8 feet and 12 feet high), and 1,247 meters (4,092 feet) long, at a cost of \$1,419,000, would reduce the average noise level by 5 decibels or more for 42 homes. An additional 12 homes will also benefit from Barrier 1, although the noise reduction would be less than 5 decibels.

Barrier 2 – Kings Inn Motel: A soundwall 3.6 meters (12 feet) high and 252 meters (827 feet) long, at a cost of \$315,000, would reduce the noise level by 8.6 decibels for the Kings Inn Motel's nine units.

Barrier 3 – Riverland: A soundwall 4.0 meters (13 feet) high and 338 meters (1,108 feet) long, beginning 58 meters (190 feet) south of the Kings River Bridge and extending approximately 79 meters (260 feet) south of the Riverland property, at a cost of \$468,000, would reduce the noise level by 5 decibels for residences. The ranch south of Riverland would also benefit from Barrier 3, although the noise reduction would be less than 5 decibels.

Figures 2-1, 2-2, and 2-3 show photo simulations of the proposed soundwalls. Table 2.5 shows the existing and future noise levels with and without the sound barriers. During final design, if conditions substantially change, the abatement measures may not be needed. The final decision of the noise abatement would be made upon completion of the project design and the public involvement processes.

Construction Noise

Construction noise would be intermittent depending on the location and type of construction activity. The noise would conform to the local noise level ordinance. Construction noise can be minimized through equipment noise control and administrative measures. Caltrans standard specifications provide guidance to the construction contractor for noise control: muffled construction equipment, temporary noise barriers, scheduled construction hours, and community notices.



Existing



Proposed Soundwall



Figure 2-1 Barrier 1 – Kingsburg – Conejo Southbound On-ramp



Existing



Proposed Soundwall



Figure 2-2 Barrier 2 – Kings Inn Motel – Northbound State Route 99



Existing



Proposed Soundwall



Figure 2-3 Barrier 3 – Riverland – Southbound State Route 99



Table 2.5 Existing and Future Noise Levels with and without Abatement

| Noise Receptor Number and Location | Noise Abatement Criteria (dBA) | 2003 Existing Noise Level (dBA) | 2030 Future Predicted Noise Level (dBA) without Project (No Build) | 2030 Predicted Noise Level (dBA) with Project No Barriers | 2030 Predicted Noise Level with Abatement with the Project (dBA) and the Respective Barrier Height | | | Reasonable and Feasible |
|--|---|--|--|--|--|--------------------------|--------------------------|-------------------------------|
| | | | | | 2.4-m (8-ft) Wall | 3.6-m (12-ft) Wall | 4.0-m (13-ft) Wall | |
| Barrier 1 – Kingsburg | | | | | | | | |
| #1 – 1381 Roosevelt at 14 th Avenue | 67 | 73.1 | 73.7 | 73.7 | 70.4 | 67.4* | n/a | Yes |
| #3 – 1161 Lewis Street | 67 | 67.4 | 68.1 | 70.4 | 69.6* | 68.9 | n/a | Yes |
| #4 – 1110 Lewis Street | 67 | 61.0 | 61.5 | 63.9 | 63.3* | 62.9 | n/a | Yes |
| #5 – 770 Quincy Ave. | 67 | 65.9 | 73.1 | 73.1 | 67.6* | 66.9 | n/a | Yes |
| #7 – 916 Orange Ave. | 67 | 68.2 | 68.7 | 69.0 | 64.1* | 62.3 | n/a | Yes |
| #8 – 864 Orange Ave. | 67 | 66.4 | 66.9 | 69.0 | 64.1* | 62.3 | n/a | Yes |
| Barrier 2 – Kings Inn Motel | | | | | | | | |
| #6 – Kings Inn 38406 Highway 99 Avenue 384 off-ramp at Dodge Ave. | 67 | 74.1 | 76.8 | 76.8 | 70.2 | 68.2* | n/a | Yes |
| Barrier 3 – Riverland 2006 Noise Study | | | | | | | | |
| #10 – Riverland | 67 | 70.5 | 70.5 | 74.8 | 72.6 | 67.8 | 65.8 | Yes |

dBA=a-weighted decibels, m=meter; ft=foot

* Indicates height of proposed wall to be included in the project

2.3 Biological Environment

Caltrans biology staff prepared a Natural Environmental Study in October 2004 and a Biological Assessment in November 2004. Formal consultation pursuant to Section 7 of the Endangered Species Act began on December 15, 2004 by the Federal Highway Administration.

2.3.1 Natural Communities

This section of the document discusses natural communities of concern. The focus of this section is on biological communities, not individual plant or animal species. This section also includes information on wildlife corridors and habitat fragmentation. Wildlife corridors are areas of habitat used by wildlife for seasonal or daily migration. Habitat fragmentation involves the potential for dividing sensitive habitat and thereby lessening its biological value.

Wetlands and Other Waters of the U.S. are discussed in Section 2.3.2. Habitat areas that have been designated as critical habitat under the Federal Endangered Species Act are discussed below in Section 2.3.4.

Natural communities of special concern within the biological survey area include wetlands, Waters of the U.S., and riparian areas along the Kings River, which are discussed in Section 2.3.2. The biological survey area also includes designated critical habitat for vernal pool fairy/tadpole shrimp and vernal pool plants, discussed in Section 2.3.4. Most of the land within the project impact area includes highly disturbed (mowed, scraped) non-native annual vegetation in the median and shoulders interspersed with ornamental trees and shrubs.

2.3.2 Wetlands and Other Waters

Regulatory Setting

Wetlands and other waters are protected under a number of laws and regulations. At the federal level, the Clean Water Act (33 U.S. Code 1344) is the primary law regulating wetlands and waters of the U.S. The Clean Water Act regulates the discharge of dredged or fill material into waters of the U.S., including wetlands. Waters of the U.S. include navigable waters, interstate waters, territorial seas, and other waters that may be used in interstate or foreign commerce. To classify wetlands for the purposes of the Clean Water Act, a three-parameter approach is used that

includes the presence of: hydrophytic (water-loving) vegetation, wetland hydrology, and hydric soils (soils subject to saturation/inundation). All three parameters must be present, under normal circumstances, for an area to be designated as a jurisdictional wetland under the Clean Water Act.

Section 404 of the Clean Water Act establishes a regulatory program that provides that no discharge of dredged or fill material can be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation's waters would be significantly degraded. The Section 404 permit program is administered by the U.S. Army Corps of Engineers with oversight by the Environmental Protection Agency.

The Executive Order for the Protection of Wetlands (Executive Order 11990) also regulates the activities of federal agencies with regard to wetlands. Essentially, this executive order states that a federal agency, such as the Federal Highway Administration, cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds: 1) that there is no practicable alternative to the construction and 2) the proposed project includes all practicable measures to minimize harm.

At the state level, wetlands and other waters of the U.S. are regulated primarily by the California Department of Fish and Game and the California Regional Water Quality Control Board. In certain circumstances, the Coastal Commission (or Bay Conservation and Development Commission) may also be involved. Sections 1600-1607 of the Fish and Game Code require any agency that proposes a project that will substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify the California Department of Fish and Game before beginning construction.

If the California Department of Fish and Game determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required. California Department of Fish and Game jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. Wetlands under jurisdiction of the U.S. Army Corps of Engineers may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the California Department of Fish and Game.

The California Regional Water Quality Control Boards were established under the Porter-Cologne Water Quality Control Act to oversee water quality. Each California Regional Water Quality Control Board also issues water quality certifications in compliance with Section 401 of the Clean Water Act. See the Water Quality section for additional details.

Affected Environment

The Kings River, Cross Creek, and one northern tributary to Cross Creek are the prominent jurisdictional Waters of the U.S. within the project area. Water no longer typically flows under the three bridges south of Cross Creek. Therefore, they do not qualify as “Other Waters of the U.S.”

Wetland areas occur within the Kings River channel, including stands of cattail, bulrush, rushes, and other plants that can exist only in wetlands. Riparian (vegetation that grows along a waterway) trees and shrubs dominated by willows, cottonwoods, valley oaks, and blackberry vines occur along the banks. Several mature willows occur along the banks of Cross Creek. No riparian vegetation occurs along the banks of the northern tributary to Cross Creek.

Impacts

Temporary effects to jurisdictional waterways would include vegetation removal and insertion of temporary fill dirt for equipment access, equipment usage, and foot traffic.

Permanent impacts to the Kings River would be limited to the widening of piers for the northbound and southbound bridges. Total permanent impacts are estimated at less than 0.0405 hectare (0.1 acre) within Waters of the U.S. and less than 0.0405 hectare (0.1 acre) within wetlands.

At Cross Creek, permanent impacts would include extending the existing box culverts under State Route 99. Total permanent fill dirt is estimated at less than 0.0405 hectare (0.1 acre) within Waters of the U.S.

At the small tributary to Cross Creek, permanent impacts would include extending the existing box culverts under State Route 99. Total permanent fill dirt is estimated at less than 0.0405 hectare (0.1 acre) within Waters of the U.S.

Avoidance, Minimization, and/or Mitigation Measures

The project has been designed to include the smallest footprint practicable within the Kings River and Cross Creek channels to minimize temporary and indirect effects, as well as permanent impacts to wetlands, Waters of the U.S., and riparian areas.

For unavoidable impacts to wetlands, proposed mitigation would consist of onsite in-kind replacement or credits purchased from a wetlands mitigation bank. A Clean Water Act Section 404 Nationwide permit issued by the U.S. Army Corps of Engineers would be required. To compensate for the removal of riparian vegetation at the Kings River, riparian trees and shrubs would be planted in a location and at a ratio determined through a Section 1602 Streambed Alteration Agreement with the California Department of Fish and Game. Table 2.6 shows the permits required for the project.

Table 2.6 Regulatory Permits Required for Wetlands, Waters of the United States, and Riparian Areas

| Potential Effect | Permit Required | Issuing Agency |
|---|--|---|
| Permanent fill within wetlands and Waters of the U.S. | Clean Water Act, Section 404 Nationwide 14 or 33 | U.S. Army Corps of Engineers |
| Disturbance to the bed, bank, channel, and/or riparian vegetation of a stream, river, or lake | Fish and Game Code, 1602 Streambed Alteration Agreement | California Department of Fish and Game |
| Temporary reduction of water quality | Clean Water Act, Section 401 Water Quality Certification | California Regional Water Quality Control Board |
| Stream and bank disturbance at Kings River and Cross Creek | Encroachment permit | California Reclamation Board |

2.3.3 Animal Species *Regulatory Setting*

Many state and federal laws regulate impacts to wildlife. The U.S. Fish and Wildlife Service, the National Oceanic and Atmospheric Administration Fisheries, and the California Department of Fish and Game are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with wildlife not listed or proposed for listing under the state or federal Endangered Species Act. Species listed or proposed for listing as threatened or endangered are discussed in Section 2.3.4. All other special-status animal species are discussed here,

including California Department of Fish and Game fully protected species and species of special concern, and U.S. Fish and Wildlife Service or National Oceanic and Atmospheric Administration Fisheries candidate species.

Federal laws and regulations pertaining to wildlife include the following:

- National Environmental Policy Act
- Migratory Bird Treaty Act
- Fish and Wildlife Coordination Act

State laws and regulations pertaining to wildlife include the following:

- California Environmental Quality Act
- Section 1602 of the California Fish and Game Code
- Sections 4150 and 4152 of the California Fish and Game Code

Affected Environment

A biological database query was performed to determine which species in the past have been observed within or near the project impact area. The U.S. Fish and Wildlife Service maintains a database of all federal special-status species. A list of species is available by written request. A federal special-status species list, dated January 20, 2000, was obtained by Caltrans for the Burris Park, Goshen, Selma, and Traver U.S. Geological Survey topographic quadrangles. The list was updated on June 2, 2004 (see Appendix D). All listed special-status species sightings within a 10-mile radius of the project area were reviewed via the California Natural Diversity Database. The California Department of Fish and Game maintains that database.

The following threatened or endangered animal species are likely to occur in the biological study area: California tiger salamander, San Joaquin kit fox, valley elderberry longhorn beetle, Swainson's hawk, vernal pool fairy shrimp, and vernal pool tadpole shrimp. These species are discussed in Section 2.3.4, Threatened and Endangered Species.

In addition to the threatened and endangered species above, the pallid bat and the Yuma myotis bat are present in the project area. These species are discussed below.

Pallid Bat (*Antrozous pallidus*)

The pallid bat is found in low- and middle-elevation areas to 1,830 meters (6,000 feet) throughout California, in scattered desert scrub, grassland, shrubland, woodland,

and forests from sea level through mixed conifer. The bat is associated with oak woodland, ponderosa pine, mixed conifer, redwood, and giant sequoia habitats in Central and Northern California. Roost sites include rock outcrops, mines, caves, tree hollows, buildings, and bridges. Night roosts may vary, but are commonly found under bridges and in caves and mines. The pallid bat is a year-round resident.

Suitable roosting habitat for the pallid bat exists under the northbound and southbound Kings River Bridge. Evidence shows widespread presence of whitewash and pellets. Suitable foraging habitat exists within the Kings River riparian corridor.

Yuma Myotis Bat (*Myotis yumanensis*)

The Yuma myotis bat is common and widespread in California, found in a wide variety of habitats ranging from sea level to 3,300 meters (11,000 feet). Bat distribution is closely tied to bodies of water, which bats use as foraging sites and as sources of drinking water. This species feeds over water sources such as ponds, streams, and stock tanks. Prey includes moths, midges, flies, termites, and ants. The bats roost in buildings, mines, caves, or crevices. The Yuma myotis bat has also been seen roosting in abandoned swallow nests and under bridges.

Suitable roosting habitat for bats exists under the northbound and southbound Kings River Bridge. Evidence shows the widespread presence of whitewash and pellets. Suitable foraging habitat exists along the Kings River riparian corridor.

Impacts

Pallid Bat and Yuma Myotis Bat

Roosting habitat would be removed under the southbound bridge during bridge replacement, and temporary disturbance would occur to roosting habitat under the northbound bridge during bridge widening.

Avoidance, Minimization, and/or Mitigation Measures

Pallid Bat and Yuma Myotis Bat

A 1602 Streambed Alteration Agreement with the California Department of Fish and Game would be required for determining compensation for the bat-roosting habitat removal. If construction occurs when bats are present, they would be discouraged from roosting under the bridge by passive means, for example, bright lights, and/or excluded by installing a physical barrier, such as netting and/or filling in crevices with hardened foam. These methods may not exclude all bats and therefore, a monitor would be present during the exclusion effort and during bridge removal to remove

any remaining bats. New bat-roosting habitat would be incorporated into the structural design of the new southbound structure and/or offsite.

2.3.4 Threatened and Endangered Species

Regulatory Setting

The primary federal law protecting threatened and endangered species is the Federal Endangered Species Act: U.S. Code, Section 1531, et seq. See also 50 Code of Federal Regulations Part 402. This act and subsequent amendments provide for the conservation of endangered and threatened species and the ecosystems upon which they depend.

Under Section 7 of this act, federal agencies, such as the Federal Highway Administration, are required to consult with the U.S. Fish and Wildlife Service and the National Oceanographic and Atmospheric Fisheries to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat is defined as geographic locations critical to the existence of a threatened or endangered species. The outcome of consultation under Section 7 is a Biological Opinion or an incidental take statement. Section 3 of the Federal Endangered Species Act defines take as “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or any attempt at such conduct.”

California has enacted a similar law at the state level, the California Endangered Species Act, California Fish and Game Code, Section 2050, et seq. The California Endangered Species Act emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate planning to offset project caused losses of listed species populations and their essential habitats. The California Department of Fish and Game is the agency responsible for implementing the California Endangered Species Act. Section 2081 of the Fish and Game Code prohibits “take” of any species determined to be an endangered species or a threatened species. Take is defined in Section 86 of the Fish and Game Code as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” The California Endangered Species Act allows for take incidental to otherwise lawful development projects; for these actions, an incidental take permit is issued by the California Department of Fish and Game. For projects requiring a Biological Opinion under Section 7 of the Federal Endangered Species Act, the California Department Fish and Game may also authorize impacts to the California Endangered

Species Act by issuing a Consistency Determination under Section 2080.1 of the Fish and Game Code.

Affected Environment

A Biological Assessment was completed in November 2004 under the direction of the U.S. Fish and Wildlife Service. Of the species that were subject to focused surveys, it was determined that potential suitable habitat exists within the project area. Table 2.7 shows the species involved.

Table 2.7 Listed Animal Species Potentially in the Project Area

| Common Name | Scientific Name | Status ¹ | Species ¹ Habitat Presence/ Absence | Rationale |
|-----------------------------------|--|---------------------|---|---|
| California tiger salamander | <i>Ambystoma californiense</i> | FT | P CH | Open grasslands with vernal pools and tiger salamander sightings occur in the Cross Creek area, but no suitable habitat for this species occurs in the right-of-way |
| San Joaquin kit fox | <i>Vulpes macrotis mutica</i> | FE | P | The project impact area occurs within a potential kit fox migration corridor/habitat island at Cross Creek |
| Valley elderberry longhorn beetle | <i>Desmocerus californicus dimorphus</i> | FT | P | Nine elderberry shrubs occur within/near the project impact area |
| Swainson's Hawk | <i>Buteo swainsoni</i> | ST | P | One active nest identified near Cross Creek |
| Vernal pool fairy shrimp | <i>Branchinecta lynchi</i> | FT | CH | Designated critical habitat for fairy shrimp occurs along Cross Creek |
| Vernal pool tadpole shrimp | <i>Lepidurus packardii</i> | FE | CH | Designated critical habitat for tadpole shrimp occurs along Cross Creek |

¹Status Codes

FE = Federal Endangered

FT = Federal Threatened

ST = State Threatened

P = Present

CH = Critical Habitat – project footprint is located within a designated critical habitat unit, but does not necessarily mean that appropriate habitat is present

California Tiger Salamander (*Ambystoma californiense*)

The range of the federally threatened California tiger salamander runs in the north from Petaluma in Sonoma County to Dunnigan on the Colusa-Yolo county line, with an isolated outpost north of the Sutter Buttes at Gray Lodge, Butte County in the

Central Valley. The range extends south to vernal pools in northwest Tulare County, and in the Coast Range south to ponds and vernal pools between Buellton and Lompoc in the Santa Ynez drainage in Santa Barbara County.

This salamander's range is restricted to the grasslands and lowest foothill regions of Central and Northern California, which is where its breeding habitat (long-lasting rain pools) occurs. One temporary rain pool within the right-of-way was analyzed during fairy shrimp surveys. It was concluded that the pool does not typically persist for a sufficient duration (10 weeks) to allow for complete metamorphosis of juvenile salamanders. No pools suitable for tiger salamander reproduction were observed close to the right-of-way.

Tiger salamanders can migrate up to 1.6 kilometers (1 mile) to suitable breeding habitat. Although some small mammal burrows occur within the right-of-way, the right-of-way would not provide preferred upland habitat for tiger salamanders due to the existing disturbance (noise, trash, mowing, scraping, roadway runoff), especially when a large quantity of unplowed grassland with many small rodent burrows exists east and west of State Route 99 at Cross Creek.

On August 4, 2004, the U.S. Fish and Wildlife Service designated 47 critical habitat units for the California tiger salamander, central population, including the open grasslands along Cross Creek.

San Joaquin Kit Fox (Vulpes macrotis mutica)

The San Joaquin kit fox is a federally endangered and state threatened species. The kit fox inhabits grasslands and scrublands, many of which have been extensively modified. Types of modified habitats include those with oil exploration and extraction equipment and wind turbines, agricultural row crops, irrigated pastures, orchards, vineyards, and grazed annual grasslands. Oak woodland, alkali sink scrubland, and vernal pool and alkali meadow communities also provide habitat for kit foxes.

Kit foxes are thought to occupy suitable habitat on the San Joaquin Valley floor and in the surrounding foothills of the coastal ranges, Sierra Nevada, and Tehachapi Mountains. Kit foxes have been found on all the larger, scattered islands of natural land on the valley floor in Kern, Tulare, Kings, Fresno, Madera, San Benito, Merced, Stanislaus, San Joaquin, Alameda, and Contra Costa counties. Biological database reviews and field survey data suggest that the local kit fox population in the region consists of very low numbers of widely dispersed individuals.

According to the California Natural Diversity Database, the nearest kit fox sighting was made in 1975 over 16 kilometers (10 miles) away. However, since kit foxes can occupy a home range of up to 2,590 hectares (10 square miles), it is possible that, at least occasionally, kit foxes may move closer to the project impact area. But, most likely, kit foxes rarely cross over this stretch of State Route 99. To date, no reports of kit fox vehicle strikes have been filed.

A large, unplowed tract of open grassland is adjacent to the project impact area along Cross Creek. This habitat block provides suitable denning and foraging habitat for kit foxes and is one of the last remaining contiguous blocks of natural land in the State Route 99 corridor in Tulare County. The U.S. Fish and Wildlife Service has identified similar areas as potential migration corridors for kit foxes and highlighted their recovery value in *Recovery Plan for Upland Species of the San Joaquin Valley, California* (U.S. Fish and Wildlife Service 1998). However, the Cross Creek area is not specifically identified as a recovery priority in the recovery plan. No kit foxes were observed during spotlight surveys, and no kit foxes were observed using the existing bridge and box culverts under State Route 99.

Valley Elderberry Longhorn Beetle (Desmocerus californicus dimorphus)

The federally threatened valley elderberry longhorn beetle lives on elderberry shrubs in California's Central Valley during its entire life cycle. This beetle requires the elderberry plants (particularly with stems greater than 2.54 centimeters [1 inches]) for its survival. Recent surveys have indicated the beetle exists only in scattered locations along the Sacramento, American, San Joaquin, Kings, Kaweah, and Tule rivers and their tributaries. Over 90 percent of the riparian forests have been cleared in the past century for agricultural, urban, and suburban development. Extensive use of pesticides and grazing has severely degraded riparian habitat.

Ten elderberry shrubs occur within or adjacent to the project impact area. These shrubs contain a total of 63 stems greater than 2.54 centimeter (1 inch) at ground level. No beetle exit holes were observed.

Swainson's Hawk (Buteo swainsoni)

The Swainson's hawk is a summer migrant in the Central Valley, Klamath Basin, Northeastern Plateau, Lassen County, and Mojave Desert. The hawk breeds in stands with few trees in juniper-sage flats, riparian areas, and in oak savannah in the Central Valley. It forages in adjacent grasslands or suitable grain or alfalfa fields, or livestock

pastures. Formerly abundant in California, the population has declined from the loss of nesting habitat.

The Swainson's hawk eats mice, gophers, ground squirrels, rabbits, large arthropods, amphibians, reptiles, birds, and rarely, fish. It soars at various levels in search of prey, catching insects and bats in flight. It may also walk on the ground to catch invertebrates and other prey. The Swainson's hawk may be preyed upon by golden eagles. Competitors for food include northern harriers, red-tailed hawks, white-tailed kites, burrowing owls, and golden eagles.

The Swainson's hawk roosts in large trees, but will roost on the ground if no trees are available. Nests occur in open riparian habitat, in scattered trees, or in small groves in sparsely vegetated flatlands. Nests are usually found near water in the Central Valley, but they can also be found in arid regions.

One active Swainson's hawk nest was identified next to the project area near Cross Creek. No suitable foraging habitat for the Swainson's hawk exists within the project impact area.

Vernal Pool Fairy Shrimp (Branchinecta lynchi)

The federally threatened vernal pool fairy shrimp is widely distributed in the grasslands of the state, from Red Bluff in Shasta County, south through much of the Central Valley, to the Santa Rosa Plateau in Riverside County. The most common habitat for this species is a small swale, earth slump, or basalt-flow depression basin with a grassy or muddy bottom in unplowed grassland. Compared to other fairy shrimp species, the vernal pool fairy shrimp deposits eggs relatively quickly. Maturity can be reached in as little as 18 days. The species can produce multiple hatchings per year and can survive year after year in pools that last as short as three weeks.

Vernal Pool Tadpole Shrimp (Lepidurus packardii)

The federally endangered vernal pool tadpole shrimp is a small crustacean that has a large shield-like shell that covers most of the body, and a pair of long appendages at the end of the last abdominal segment. Tadpole shrimp climb or scramble over objects, and plow along or within bottom sediments. Vernal pool tadpole shrimp adults reach a length of 5 centimeters (2 inches). The life history of the vernal pool tadpole shrimp is linked to the seasonal cycle of the vernal pool. After winter rainwater fills the pool, the population is reestablished from eggs that lie dormant in

the dry pool sediments. Mature adults have been observed in vernal pools three to four weeks after the pools have filled.

Survey results for both vernal pool tadpole shrimp and vernal pool fairy shrimp were negative during surveys conducted during the 2002/2003 and 2003/2004 wet seasons. The pool that was surveyed within the right-of-way near Cross Creek did not contain water long enough to serve as suitable fairy shrimp reproductive habitat.

The U.S. Fish and Wildlife Service has designated the large, unplowed grassland areas adjacent to Cross Creek as critical habitat for special-status crustaceans, including the vernal pool tadpole shrimp and vernal pool fairy shrimp. However, the physical and biological features essential for this species are not present in the project impact area. These features include the following:

- Vernal pools, swales, and other ephemeral (temporary) wetland features of appropriate sizes and depths that typically become inundated during winter rains and hold water long enough for the invertebrate species to complete their life cycles. These areas provide species with space, physiological requirements, shelter, and reproduction sites.
- Geographic, topographic, and soil features that support systems of connected pools, swales, and other temporary wetlands and depressions within vernal pool complexes. These complexes maintain a seasonal cycle of ponding and drying, which attract egg dispersers such as waterfowl, amphibians, mammals, and/or insects. The complexes also channel waters from overflowing temporary wetland areas so that eggs are washed from one such wetland to another.

Impacts

California Tiger Salamander

All construction work in the Cross Creek area would be limited to the existing right-of-way. No suitable aquatic or upland habitat for tiger salamanders would be affected. No impacts to the California tiger salamander are expected to occur as a result of project construction.

San Joaquin Kit Fox

The proposed project may affect a potential kit fox migration corridor, particularly in the Cross Creek area. If a kit fox attempts to cross State Route 99, a vehicle strike could be possible.

Right-of-way would be acquired along the western edge of the alignment at the Kings River. Minimal right-of-way from Riverland, an orchard, and two pastures would be acquired. Grazing is abundant in the pastures, resulting in very short vegetation. Since existing background disturbance in the vicinity is high, kit foxes are not expected to be present in these locations.

Valley Elderberry Longhorn Beetle

Seven elderberry shrubs with a total of 44 stems greater than or equal to 2.54 centimeters (1 inch) at ground level would be removed during construction activity.

Swainson's Hawk

No direct impacts to the Swainson's hawk or suitable foraging habitat would occur. Potential indirect impacts would include construction activities within 0.40 kilometer (0.25 mile) of the active nest that may produce disturbance resulting in the abandonment of eggs and/or young. Existing traffic is currently tolerated by the Swainson's hawk pair next to the project area near Cross Creek. Traffic would continue to use State Route 99 during construction.

Vernal Pool Fairy/Tadpole Shrimp

Primary constituent elements for critical habitat are absent within the right-of-way. No suitable habitat for listed crustaceans was observed during wet season surveys. No impacts to the vernal pool fairy shrimp/vernal pool tadpole shrimp are expected to occur as a result of project construction.

Avoidance, Minimization, and/or Mitigation Measures

San Joaquin Kit Fox

All construction work in the Cross Creek area would be limited to the existing right-of-way. No suitable denning/foraging habitat for kit foxes would be affected. Caltrans would implement the following as mitigation for potential project effects to the San Joaquin kit fox migratory movement:

- Pre-construction surveys before ground disturbance to search for kit fox dens within or adjacent to the project impact area. Project actions likely to result in incidental take of kit foxes would cease immediately, and the U.S. Fish and Wildlife Service would be contacted immediately for further guidance.
- All existing bridges and box culverts would remain in place, allowing kit foxes to cross under State Route 99, including key crossing locations in the Cross Creek area.

- The proposed median barrier between the McClanahan ditch and the North Goshen overhead would consist of metal thrie-beam or alternating concrete/metal thrie-beam to allow kit foxes passage across the State Route 99 median.
- Right-of-way fences between the McClanahan ditch and the North Goshen overhead (which includes the Cross Creek area) would be designed to allow for kit fox passage.

Valley Elderberry Longhorn Beetle

Two shrubs would be designated as an Environmentally Sensitive area and avoided by a minimum of 3 meters (10 feet) from the edge of the shrub canopy's drip line. To minimize unavoidable impacts, seven shrubs would be transplanted in a suitable area at an alternate location, and additional elderberry shrubs and associated vegetation would be planted.

The proposed project meets the criteria for programmatic consultation with the U.S. Fish and Wildlife Service regarding actions that the Federal Highway Administration may take on projects with limited effect on the valley elderberry longhorn beetle. Mitigation would proceed according to U.S. Fish and Wildlife Service guidelines (1999) involving transplantation of the seven removed shrubs, as well as planting elderberry seedlings and associated native plants in an appropriate-sized mitigation area to be preserved in perpetuity.

Swainson's Hawk

The nest tree would not be removed during construction, and avoidance measures would be implemented to reduce potential disturbance. Preconstruction surveys would be completed for the Swainson's hawk, and the nest would be avoided during the nesting season (March 1–September 15). Construction noise is not expected to appreciably exceed existing background traffic noise. No pile driving or other relatively loud construction activities are scheduled for areas within a 0.40-kilometer (0.25-mile) distance from the nest. If avoidance is not practicable, biological monitoring, concurrent with consultation with the California Department of Fish and Game, would proceed to ensure that no mortality to Swainson's hawks occurs as a result of construction.

U.S. Fish and Wildlife Service Biological Opinion

A Biological Opinion was received from the U.S. Fish and Wildlife Service on June 23, 2005. According to the Biological Opinion, the proposed project would not

jeopardize the continued existence of the San Joaquin kit fox or the valley elderberry longhorn beetle, nor adversely modify any proposed or designated critical habitat.

The Biological Opinion presents reasonable and prudent measures that, when implemented, would minimize potential effects of the proposed project on the San Joaquin kit fox and the valley elderberry longhorn beetle. These measures include the following:

- Implementation of conservation measures as described in the Biological Assessment and the Biological Opinion.
- Minimization of adverse effects to the San Joaquin kit fox.
- Minimization of adverse effects to the valley elderberry longhorn beetle.
- Compliance with the Biological Opinion.

2.3.5 Invasive Species

Regulatory Setting

On February 3, 1999, President Bill Clinton signed Executive Order 13112 requiring federal agencies to combat the introduction or spread of invasive species in the United States. The order defines invasive species as “any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health.” Federal Highway Administration guidance issued August 10, 1999 directs the use of the state’s noxious weed list to define the invasive plants that must be considered as part of the National Environmental Policy Act analysis for a proposed project.

Affected Environment

The state and federal Composite List of All United States Noxious Weeds (U.S. Department of Agriculture 2004) shows only one plant species observed within the project study area listed as invasive in California: yellow star-thistle (*Centaurea solstitialis*). The yellow star-thistle is categorized under “C,” which designates state-endorsed holding action and eradication only when found in a nursery. No federally listed plants were observed within the project study area, and no invasive animals were observed within the project study area.

Impacts

During construction activities, small populations of yellow star-thistle would be removed.

Avoidance, Minimization, and/or Mitigation Measures

The removal of the yellow star-thistle within the project area is not likely to result in the further spread of this species.

None of the species on the California list of noxious weeds is currently used by Caltrans for erosion control or landscaping. In compliance with the Executive Order on Invasive Species, Executive Order 13112, and subsequent guidance from the Federal Highway Administration, the landscaping and erosion control included in the project would not use species listed as noxious weeds. In areas of particular sensitivity, extra precautions would be taken if invasive species were found in or adjacent to the construction areas. These include inspecting and cleaning construction equipment and implementing eradication strategies if an invasion occurs.

2.4 Construction Impacts

A preliminary Transportation Management Plan was developed for the proposed project. The objective of the Transportation Management Plan is to minimize delay and maximize safety for motorists during construction. The plan would be updated in the final design phase of the project.

Most of the project construction would occur in the median. During construction of the proposed southbound Kings River Bridge, southbound traffic would be detoured to the northbound bridge. The northbound bridge would have four lanes at 3.6 meters (12 feet), with 1.3-meter (4.3-foot) shoulders during the detour. A detour for Cross Creek would be identical to the Kings River detour. Traffic control would be necessary during the construction of all shoulders, lanes, and bridges.

Recommendations in the Transportation Management Plan include the following:

- Public awareness through brochures, mailers, media releases, and information centers.
- Motorist awareness through changeable message signs, ground-mounted signs, and commercial traffic signs.

- Incident management through use of the Construction Zone Enhanced Enforcement Program and traffic surveillance stations.
- Off-peak and night work.
- Project phasing.

2.5 Cumulative Impacts

Regulatory Setting

Cumulative impacts result from past, present, and reasonably foreseeable future actions, combined with the potential impacts of this project. A cumulative effect assessment looks at the collective impacts posed by individual land use plans and projects. Cumulative impacts can result from individually minor but collectively substantial impacts taking place over a period of time.

Cumulative impacts to resources in the project area may result from residential, commercial, industrial, and highway development, as well as from agricultural development and the conversion to more intensive types of agricultural cultivation. These land use activities can degrade habitat and species diversity through consequences such as displacement and fragmentation of habitats and populations, alteration of hydrology, contamination, erosion, sedimentation, disruption of migration corridors, changes in water quality, and introduction or promotion of predators. They can also contribute to potential community impacts identified for the project, such as changes in community character, traffic patterns, housing availability, and employment.

California Environmental Quality Act Guidelines Section 15130 describes when a cumulative impact analysis is warranted and what elements are necessary for an adequate discussion of cumulative impacts. The definition of cumulative impacts, under the California Environmental Quality Act, can be found in Section 15355. A definition of cumulative impacts, under the National Environmental Policy Act, can be found in 40 Code of Federal Regulations, Section 1508.7 of the Council on Environmental Quality Regulations.

Affected Environment

This project conforms to the Tulare County General Plan and the Fresno County General Plan, which envision this freeway as six lanes and ultimately eight lanes beyond 20 years. The addition of two lanes in the median along State Route 99 would not affect Kingsburg or the designated agricultural lands in Tulare County.

Furthermore, Tulare County estimates a 2.25 percent growth rate for the next 20 years, according to the Tulare Regional Transportation Plan adopted in August 2004. The relationship between the proposed project and growth in the area is expected to be one of accommodating planned growth, rather than inducing growth.

This project is consistent with planned projects along State Route 99. Other Caltrans projects to the north and the south are also proposing six lanes—the Kingsburg to Selma Six-Lane Project and the Tulare to Goshen Six-Lane Project.

The Kingsburg to Selma Six-Lane Project, currently under construction, proposes median lane widening, noise barriers, and rehabilitation by panel replacement.

The Tulare to Goshen Six-Lane Project proposes widening the road to six lanes with minimal reconstruction of structures. To accommodate the limited median area and to attempt to reduce right-of-way impacts, the northbound lane addition would alternate between inside and outside widening. The southbound lane addition would be constructed within the median for the entire length of the project. Environmental studies are currently being performed for this project.

For all of these projects, environmental impacts are minimal. The median is being used for the widening. In addition, these projects involve replacing structures. These projects would not affect established land use planning in Fresno County, Tulare County or the City of Kingsburg. No new interchange projects are planned within the project area. Travel demand and travel patterns would not be modified. Travel demand and travel patterns are dictated by interregional traffic and commuter destinations outside the project area.

Impacts

Cumulative impacts associated with this project are minimal. Right-of-way acquisition for this project would include land slivers adjacent to State Route 99 at the Kings River area, a total of 1.94 hectares (4.8 acres). Only 0.49 hectare (1.21 acres) of prime farmland would be lost to another land use. The project would require a small amount of farmland, but would not result in the full acquisition or severance of

any farm operation. See Appendix E for the Farmland Conversion Impact Rating for Corridor Type Projects. The project rating is below the 160 threshold, which requires more consideration to alternatives and minimizing impacts to farmland. No residential or commercial uses would be acquired.

The regional landscape can accommodate the additional lanes and road shoulders without losing substantial visual quality. Mitigation for the complete removal of oleanders in the median, about 11.3 kilometers (7 miles), includes replacement planting at the State Routes 99/198 interchange, State Route 99 through the community of Traver, and State Route 99 through the city of Kingsburg. Landscaping along the shoulders would remain, and the project area would not be adversely affected.

Summary of Cumulative Impacts

The proposed project would upgrade highway capacity in response to traffic demand, operational, and Level of Service needs. The City of Kingsburg and Tulare County have adopted general plans that designate most of the project area for agricultural use. The project is consistent with the general plan principles that prohibit development of the agricultural uses in the project area or those that would induce growth.

Cumulative impacts are minimal because the project would be built largely within the existing median. The proposed State Route 99 Tulare to Goshen six-lane freeway widening to the south would also be built largely within the median and is in a developed agricultural area, thus minimizing impacts. The State Route 99 Kingsburg to Selma six-lane freeway project north of the project area will be completed in 2008. The median was also used for this project's lane widening.

The No-Build Alternative would have increased air quality impacts and would not address the regional and interregional traffic needs. The use of the median for most of the six-lane freeway project and the agricultural use of the project area minimizes impacts. The remaining project noise, scenic, biological, wetlands, and water quality impacts are minimal and these impacts can be largely mitigated. Therefore, given these circumstances the incremental cumulative contribution of this project when combined with the effects of the past, current, and probable future projects are not cumulatively considerable.

Chapter 3 Comments and Coordination

Early and continuing coordination with the general public and appropriate public agencies is an essential part of the environmental process to determine the scope of environmental documentation, the level of analysis, potential impacts and mitigation measures, and related environmental requirements. Agency consultation and public participation for this project have been accomplished through a variety of formal and informal methods, including project development team meetings and interagency coordination meetings. This chapter summarizes the results of Caltrans' efforts to identify, address, and resolve project-related issues through early and continuing coordination.

California Department of Fish and Game

August 9, 2003

Clarence Mayott submitted the following recommendations via electronic mail:

- A 1602 Streambed Alteration Agreement would be required for proposed work in the Kings River and in Cross Creek.
- Preconstruction surveys for nesting hawks would be completed prior to construction.
- Avoidance of active nests during the nesting season is preferred in all cases.
- If avoidance of active nests is not possible, then monitoring of the nests would be necessary.
- Removal of eucalyptus trees would not require mitigation.
- If a raptor nest is lost during the removal of a non-native tree (including eucalyptus), then the California Department of Fish and Game would require the habitat to be replaced by planting native trees in the general area. Caltrans would prepare a revegetation plan to be reviewed by the California Department of Fish and Game.
- If oak trees are removed, then mitigation would be as follows: 10:1 for oaks greater than 24 inches diameter at breast height, 5:1 for diameter at breast height between 10-24 inches, and 3:1 for all others.
- Non-oak native trees would require a 3:1 replacement ratio.

March 23, 2004

Clarence Mayott indicated during a telephone conversation that he would not require acoustic bat surveys under the Kings River Bridge. He did, however, say that in a 1602 Streambed Alteration Agreement he would require that loss of bat-roosting habitat be compensated. He left it up to Caltrans to propose something, but said that he is in favor of “bat boxes” similar to the design Caltrans already implemented on other bridges, either attached to the bridge’s outer surface or incorporated into the bridge interior.

June 4, 2004

Clarence Mayott indicated during a telephone conversation that the perched oxbow channel of Cross Creek (just to the south of the current channel) would not require inclusion in a 1602 Streambed Alteration Agreement if: 1) no water is present during a normal water year, 2) no riparian vegetation is present, and 3) no biological resources are present that depend on water.

June 29, 2004

Clarence Mayott confirmed via electronic mail that the avoidance buffer for active Swainson’s hawk nests is one-quarter mile.

National Oceanographic and Atmospheric Fisheries

June 3, 2004

Madelyn Martinez agreed during a telephone conversation that the Kings River does not provide essential fish habitat for listed salmonids.

U.S. Fish and Wildlife Service

July 18, 2000

Susan Jones indicated during a telephone conversation that the land use of the project region indicates potential for kit fox presence. She stated that the U.S. Fish and Wildlife Service determines impacts to kit foxes more at a habitat level rather than relying solely on survey data. In other words, the U.S. Fish and Wildlife Service assumes presence if land use is suitable. If protocol surveys are negative, they do not take that as proof that kit foxes are absent and would view a concrete median barrier and impassible right-of-way fences as adverse effects to kit fox.

July-August 2003

Effort was made to obtain technical assistance from Susan Jones of the U.S. Fish and Wildlife Service to better understand potential project effects on kit foxes and to

informally discuss what avoidance and mitigation measures could be employed to reduce impacts to a level of “may affect, not likely to adversely affect.” A package containing a project description and mapping was mailed to Ms. Jones and confirmed as received on August 15. Ms. Jones subsequently indicated via electronic mail on August 22 that she was unable to review the package at that time.

June 23, 2005

A Biological Opinion was received from the U.S. Fish and Wildlife Service on June 23, 2005. After reviewing the current status of the San Joaquin kit fox and the valley elderberry longhorn beetle, it was the U.S. Fish and Wildlife Service’s opinion that the proposed project is not likely to jeopardize the continued existence of any of the listed species, or adversely modify proposed or designated critical habitat. According to the Biological Opinion, the newly acquired right-of-way does not provide suitable habitat for the kit fox, and is not likely to adversely affect the San Joaquin kit fox. The designated critical habitat for the valley elderberry longhorn beetle is not located within the action area, and would not be affected by the proposed project.

Native American Heritage Commission

September 24, 2001

A letter was mailed to the Native American Heritage Commission requesting a search of its files to determine if sacred sites, traditional cultural properties, or native plant gathering locations were present in or near the project study area. The letter also requested the names of Native American individuals and group representatives who may be interested in or able to supply information relevant to the proposed project.

October 23, 2001

The Native American Heritage Commission sent Caltrans a letter stating that the commission’s files showed that no known sacred sites, traditional cultural properties, or native plant gathering locations are known to exist within the project study area.

One individual, Robert Wood, also provided the names of five individuals who might be interested in the proposed project or able to supply information regarding Native American resources in the project vicinity.

Native American Groups

March-April 2002

Caltrans sent an initial request for tribal consultation in March 2002. A project description, vicinity map, and location maps were provided to each group for review. Additionally, the tribal groups were informed that an Extended Phase I excavation – limited presence/absence testing – was planned for that spring and that additional background information or comments regarding the proposed testing along the south bank of Kings River was requested.

In response, Hector Lalo Franco, representing the Santa Rosa Rancheria, expressed an interest in the project, and a field meeting was held on April 18, 2002. During the field visit, Mr. Franco explained his concerns regarding three areas along the project corridor—Cross Creek and the south and north banks of Kings River—and concurred with Caltrans plans to perform subsurface testing at one particular location. Mr. Franco was also deeply concerned with another area located within an orchard.

May-June 2002

Mr. Franco and Mr. Steve Thomas participated in the archaeological testing. The Extended Phase I report and Archaeological Survey Report were forwarded to the tribe by June 2002. At that time, the tribe said no religious, ceremonial, or sacred sites of significance to Native American values were located within the vicinity of the proposed project.

December 2002-April 2003

A subsequent Extended Phase I test excavation was conducted December 10-11, 2002 on another property. Mr. Franco was the Native American monitor during this subsequent investigation. A letter was sent to Santa Rosa Rancheria with a brief summary for this Extended Phase I on January 9, 2003. On April 3, 2003, another letter was sent to Santa Rosa Rancheria outlining the findings of the second archaeological testing.

Natural Resources Conservation Service – Tulare County

January 25, 2006

Caltrans staff completed the Farmland Conversion Impact Rating for Corridor Type Projects form and submitted it to Ms. Elizabeth Palmer of the Natural Resources Conservation Service in Visalia, California, on January 25, 2006. Total right-of-way would be 1.94 hectares (4.8 acres).

February 3, 2006

Caltrans received an evaluation of the completed Farmland Conversion Impact Rating for Corridor Type Projects form. The evaluation, prepared by Ms. Elizabeth Palmer of the Natural Resources Conservation Service, indicated that the total right-of-way would include 0.38 hectare (0.94 acre) of Prime and Unique farmland and 0.11 hectare (0.27 acre) of Statewide Important or Local Important farmland.

Tulare County Assessor's Office

June 26, 2006

Caltrans staff phoned the Tulare County Assessor's Office to inquire if there were any farmlands under Williamson Act contract within the project limits.

June 28, 2006

Mr. Robert Lujan of the Tulare County Assessor's Office sent Williamson Act farmland mapping that confirmed there were two farmlands under Williamson Act contract affected by the proposed project.

Open House/Public Information Meeting

October 16, 2002

An Open House/Public Information Meeting was held at Lincoln Elementary School at 1900 Mariposa Street in Kingsburg, California. The meeting was held from 4:00 p.m. to 7:00 p.m. The format followed that of an open house to receive as much public input as possible.

A public notice was published in the *Visalia Times-Delta* and the *Tulare Advance-Register* on September 16, 2002 and October 1, 2002. The public notice was also published in the *Selma Enterprise* and the *Kingsburg Recorder* on September 18, 2002 and October 2, 2002. *The Fresno Bee* published the final public notice on October 6, 2002. Local agencies and elected officials received invitations as did property owners along State Route 99 throughout the project limits.

The Open House/Public Information Meeting was held in the cafeteria of Lincoln Elementary School. Signs were placed outside directing visitors to the meeting. A sign-in table was situated at the entrance of the cafeteria where Caltrans staff greeted visitors and encouraged them to sign in and take a handout.

No formal presentation was given. Caltrans staff representing Design, Environmental Planning, Landscape, and Right-of-Way were stationed at various displays to answer questions. Caltrans Public Information Office staff were present in case local news

agencies arrived to cover the event. Press packages containing all display boards were available at the comment table. Project maps were available by request. A State Route 99 Fact Sheet was available to all visitors. Visitors were encouraged to complete a comment card to express their opinions regarding the project.

A total of 26 guests signed the sign-in sheet. Caltrans received comments on the project: five comment cards, one letter delivered at the meeting, two letters received by mail, and one phone call from a property owner. The following is a summary of the comments:

- One person expressed concern about the noise from the freeway and suggested that Caltrans extend one soundwall to protect the homes on Quincy Street. Homeowners are getting ill due to the fumes. Caltrans accommodated this request, and the design was modified to protect homeowners on Quincy Street.
- The property owner of the Kings Inn Motel requested that the soundwall be extended at the Kings Inn Motel. He plans to renovate the out-of-operation building adjacent to the motel. In August 2004, Caltrans contacted the County of Tulare Permit Center inquiring the status of any building permits and/or plans submitted by the property owner. Permits are in place for demolition, and no plans have been submitted to the county by the property owner. To accommodate this property owner, activity on the property must be approved by the local agency to be considered for noise abatement.
- One person appreciated the opportunity to see displays and to ask questions of Caltrans staff.
- One person recommended adding a wall or guardrails on the west side of the freeway because of the accidents on the southbound lanes at Avenue 360. Cars crash and end up on that person's property. There is no unusual accident concentration at Avenue 360. A further evaluation would be performed by the Traffic Safety Division during the design phase of the project.
- One person phoned Caltrans and stated that when she takes the northbound off-ramp at Mendocino, she cannot see to the left over the bridge railing. One has to stick the car way out into the intersection to see. The Mendocino interchange is beyond the scope of the project. All construction activities would be limited to State Route 99.

Public Hearing

June 8, 2006

A public hearing was held at Lincoln Elementary School in Kingsburg, California, from 4:00 p.m. to 7:00 p.m. The format followed that of an open house. No formal presentation was given. Public notices were published in *The Fresno Bee* on May 8, 2006 and May 22, 2006; the *Kingsburg Recorder* on May 24, 2006; the *Tulare Advance-Register* on May 9, 2006 and May 26, 2006; and the *Visalia Times-Delta* on May 9, 2006 and May 26, 2006. Local agencies and elected officials received invitations, as did property owners affected by the project.

Caltrans staff representing Project Management, Design, Environmental, Right-of-Way, and the Public Information Office were available to answer questions on the project. Display boards were placed around the room, and project maps were displayed in the center of the room. Visitors were encouraged to comment on the project by completing a comment card, writing Caltrans, emailing Caltrans, or voicing their comments to the court reporter available at the public hearing.

A total of 23 guests signed the sign-in sheet. Caltrans received three comment cards, one oral comment submitted to the court reporter, and five letters by mail. The following is a summary of the comments received:

- The general manager of the Consolidated Irrigation District notified Caltrans that the Cole Slough crosses State Route 99 north of the Kings River.
- The Kingsburg City Council sent a resolution supporting modifications to the southbound Mendocino off-ramp and enclosed a safety evaluation performed by Peters Engineering Group.
- A letter dated June 9, 2006 was received from the California Regional Water Quality Control Board. The board's concerns were addressed in Chapter 2 of the draft environmental document and the board had no further comments.
- A letter was received from the California Department of Water Resources regarding the Reclamation Board's jurisdiction over regulated streams. Caltrans may be required to apply for permits for this **project**, and proper application procedures were explained.
- One property owner objected to the project because the increase in noise and decrease in air quality would negatively affect his horse breeding business. See comment card and letter in Appendix E.

- One attendee completed a comment card regarding the northbound off-ramp at Mendocino where a sign blocks the view of oncoming traffic. The attendee suggested raising or lowering the sign to provide an unobstructed view.
- The president of the Central California Hispanic Chamber of Commerce submitted a comment card in support of the project.

Kingsburg Transportation Advisory Meeting

July 10, 2006

Caltrans Project Manager Phillip Sanchez, Senior Environmental Planner Juergen Vespermann, District 6 Acting District Director Alan McCuen, and Deputy District Director of Maintenance and Operations Brian Everson attended the Kingsburg Transportation Advisory Meeting on July 10, 2006 at the City Council Chamber offices in Kingsburg, California.

Alan McCuen and Phillip Sanchez gave a presentation on Caltrans State Route 99 projects and their funding issues. An information session regarding state highway projects in the area followed the presentation. Concrete barrier designs, signs at Sierra, Conejo, and Mendocino avenues, and bridge maintenance were discussed. The Advisory Meeting members were vocal on issues outside of the scope of this particular project including grade separations, aesthetics, local roads, and rest areas. Kingsburg City Manager Don Pauley suggested discussing those issues with Deputy District Director of Maintenance and Operations Brian Everson.

Goshen Planning Committee

July 18, 2006

Caltrans Project Manager Phillip Sanchez attended the Goshen Planning Committee Meeting on July 18, 2006. He presented the State Route 99 projects in the Goshen area, and a question-and-answer session followed.

Goshen Business Roundtable

July 26, 2006

Caltrans Project Manager Phillip Sanchez attended the Goshen Business Roundtable Meeting on July 26, 2006 where the Goshen-area State Route 99 projects were presented.

Chapter 4 List of Preparers

This document was prepared by the following Caltrans Central Region Environmental staff:

Christopher Bassar, Environmental Planner. B.S., Environmental Resource Management, Pennsylvania State University; 5 years of environmental technical studies experience. Contribution: Conducted Air Quality, Noise, and Water Quality studies and prepared reports.

Christopher Brewer, Associate Environmental Planner (Architectural History). M.A., Public Administration, California State University, Bakersfield; 29 years of experience in California history, cultural resource management, and architectural history. Contribution: Conducted architectural studies and prepared Historic Architectural Survey Report.

Abdulrahim Chafi, Transportation Engineer. Ph.D., Environmental Engineering, California Coast University, Santa Ana; B.S., M.S., Chemistry and M.S. Civil/Environmental Engineering, California State University, Fresno; 10 years environmental technical studies experience. Contribution: Conducted air quality studies and prepared report.

Richard Cole, Landscape Associate. B.S., Landscape Architecture, California Polytechnic State University, San Luis Obispo; 15 years of landscape architecture experience and 7 years of visual impact assessment experience. Contribution: Scenic Resource Evaluation.

Catharine C. Crandall, Graphic Designer II. B.A., Fine Arts, New York State University, Louisiana State University; 6 years of graphic artist/illustrator experience. Contribution: Created graphic illustrations.

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Ken Doran, Engineering Geologist. M.A., Geology, California State University, Fresno; B.S., Geology, California State University, Fresno; 4 years of hazardous waste assessment experience. Contribution: Conducted hazardous waste studies and prepared reports.

Lisa Flores, Associate Environmental Planner. B.A., Social Science Studies, with minor in Speech and Conflict Studies; California State University, Fresno. Contribution: Coordinator for Open House in October 2002.

Michael D. Foster, P.E., Project Engineer. B.S., Civil Engineering, California State University, Sacramento; 8 years of design experience. Contribution: Prepared Project Report, designed and estimated this project.

Geoffrey Gray, Environmental Planner. M.A., Environmental Science/Ecology, California State University; Fresno, B.S., Business Administration, California State University, Fresno; 8 years of biological resource instruction, research, impact assessment experience. Contribution: Prepared Natural Environment Study and Biological Assessment.

Peter Hansen, Engineering Geologist, P.G. B.S., Geology, California State University, Fresno; 1 year of hazardous waste experience and 5 years of paleontology/geology experience. Contribution: Prepared Paleontology Study Report

Rachel Kleinfelter, Associate Environmental Planner. B.A., Environmental Studies, Mills College; 11 years biology experience. Contribution: Biological review.

Judith Lopez, Associate Environmental Planner. B.S., Business Administration, California State University, Fresno; 8 years of environmental planning experience. Contribution: Coordinated environmental studies and preparation of Environmental Assessment/Initial Study as well as Executive Summary/Record of Public Information Meeting.

Primavera Parker, Environmental Planner. B.S., Biology/Ecology, California State University, Fresno; 6 years of biology experience. Contribution: Conducted biological studies.

Steve Ptomey, Associate Environmental Planner. B.A., Anthropology, California State University, Bakersfield; 14 years of experience in California and Great Basin archaeology. Contribution: Conducted archaeological studies and prepared Historic Property Study Report.

Phillip Sanchez, P.E., Project Manager. B.S., Civil Engineering, University of New Mexico; 16 years of construction and design experience and 6 years of project management experience. Contribution: Project Management.

Cliff Raley, Civil Engineer/Professional Geologist. M.S., Geology, California State University, Fresno; B.A., Geology, California State University, Fresno; 21 years experience in environmental sciences. Contribution: Conducted and prepared air quality studies and noise impact studies.

Denise Thomas, Associate Environmental Planner. M.A. candidate, Anthropology, California State University, Chico; B.A., Anthropology, California State University, Chico; 7 years of California and Great Basin archaeology experience. Contribution: Conducted cultural resources studies.

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